JPRS 75571

25 April 1980

Worldwide Report

NUCLEAR DEVELOPMENT AND PROLIFERATION

No. 40

FBIS FOREIGN BROADCAST INFORMATION SERVICE

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U.S. ASKED TO CHECK REPORT OF RADIOACTIVITY AT OKINAWA BASE

Cruiser Blamed

OW221323 Tokyo KYODO in English 1255 GMT 22 Mar 80 OW

[Text] Tokyo March 22 KYODO--An abnormally high reading of radioactivity has been detected in waters at the White Beach U.S. Naval Base Okinawa, where a nuclear-powered cruiser had been berthed, the Science and Technology Agency said Saturday.

The agency suspected the U.S. cruiser, the 14,200-ton Long Beach, was responsible for the radioactivity and requested U.S. authorities to investigate it.

It said the Long Beach arrived at White Beach around 9 am Friday and left shortly after 9 am Saturday. A maximum reading of 14 counts per second was registered between 1 pm and 5 pm Saturday, a reading 30 to 40 per cent higher than normal, the agency said. The agency said similarly high radioactivity was registered when the nuclear-powered cruiser was berthed at the naval base March 16-17.

The radioactive reading, however, was far below the agency's standards for N-powered warships that define as "abnormal" a reading more than three times the normal level. The agency also said a sample test Friday showed the seawater did not contain cobalt 60, an element found in the cooling water of nuclear reactors.

The opposition political parties are expected to make it an issue in the Diet because a U.S. Government statement of 1964 promised Japan that U.S. warships' calls at Japanese ports would never result in an increase in radioactivity.

The Science and Technology Agency has radioactive monitoring posts at Yokosuka, Sasebo and White Beach, where nuclear-powered vessels are allowed to make port calls.

Okinawa Antinuclear Congress

OW241427 Naha NKH Television Network in Japanese 0940 GMT 24 Mar 80 OW

[Excerpts] The Okinawa Prefectural Congress for the Prohibition of Atomic and Hydrogen Bombs (Gensuikin), headed by Chairman Hiroaki Fukuchi, has decided to sample seabed dirt at White Beach in Katsuren Village tomorrow and forward it to an organization specializing in radioactivity surveys for examination for possible radioactive contamination.

White Beach is a U.S. naval base where radioactive contamination has become a public issue in the wake of a recent portcall by a U.S. atomic-powered cruiser. An abnormally high reading of radioactivity was detected in the seawater near White Beach on 21 March when the atomic-powered cruiser Long Beach visited the port in Katsuren village.

Gensuikin convened a meeting of its Standing Committee today in this connection and discussed how to deal with the issue. The meeting decided to send representatives to White Beach tomorrow to sample seabed dirt there and forward it to a radioactivity survey organization for examination. The meeting also decided to hold a prefectural people's rally in mid-April to protest against portcalls at White Beach by atomic-powered ships. Pointing to the danger of Okinawa becoming a homeport for U.S. atomic ships, Gensuikin decided to appeal to reformist organizations in the prefecture to participate in the rally.

Meanwhile, Okinawa Prefectural Governor Nishime is scheduled to fly to Tokyo on 28 March to ask the Foreign Ministry to see that portcalls at Okinawa by U.S. atomic-powered ships are avoided as much as possible. During the visit, Governor Nishime plans to submit to the Foreign Ministry a written request asking for a reduction of portcalls at Okinawa by U.S. atomic ships as much as possible and the strengthening of surveys during and after a portcall by an atomic-powered ship. In the request, Governor Nishime also plans to ask the Foreign Ministry to provide detailed information on the purpose of a portcall at Okinawa and to take safety precautions under the state's responsibility.

JSP Appeal to Foreign Ministry

OW241253 Tokyo KYODO in English 1217 GMT 24 Mar 80 OW

[Text] Tokyo March 24 KYODO--Diet members of the opposition Japan Socialist Party Monday pressed the Foreign Ministry to refuse calls by nuclear-powered warships at White Beach Naval Base in Okinawa prefecture henceforth. The JSP members also asked the ministry to clear up the cause of the "abnormal radioactivity" reportedly detected after the U.S. nuclear powered cruiser Long Beach left the naval base.

The ministry replied that an examination of the sea water showed no "abnormal radioactivity" although the radiation level was 30 to 40 percent higher than normal intensity. The ministry also said it asked the United States to investigate the matter last Saturday and was awaiting the result of the examination. The ministry added it could not accept the JSP's request to reject future calls by atomic-powered warships at the Okinawan base.

Warns Against Overreaction

OW251327 Tokyo KYODO in English 1241 GMT 24 Mar 80 OW

[Excerpts] Tokyo March 25 KYODO--An increase in the radioactive count found at an Okinawa military port last week should not be hastily connected to the visit there by a U.S. nuclear-powered military vessel, a government official said Tuesday. "It is dangerous to hastily conclude that the increase (in the radioactive count) was due to a release of atomic reactor cooling water by the (U.S. nuclear-powered cruiser) Long Beach," said Nobuyuki Makimura of the Science and Technology Agency.

Makimura made the statement in answering a question by Shinei Kiyan, an opposition Niin club member of the House of Councillors. The detected radioactive count, Makimura said, was higher than normal but "it is dangerous to hastily judge that it was due to a leakage of cooling waters from the Long Beach."

Assembly Urges Ban

OW271439 Naha NNK Television Network in Japanese 0940 GMT 27 Mar 80 OW

[Excerpts] The Okinawa prefectural assembly today closed its 32-day regular sitting, which opened on 25 February, after passing 34 measures, including this year's budget bill. At today's session the prefectural assembly also adopted "a letter of opinion and a resolution" protesting port calls at Okinawa by U.S. atomic-powered vessels. It was presented by a majority of opposition party assembly members.

The letter of opinion and the resolution call for measures to determine and publicize the cause of a higher-than-usual reading of radioactivity detected in nearby waters at White Beach in Katsuren-son when a U.S. atomic-powered cruiser berthed there. At the same time, the letter and the resolution state that the prefectural assembly opposes future port calls at Okinawa by all U.S. atomic-powered vessels. It is reported that a delegation will fly to Tokyo shortly to submit them to government and U.S. military officials concerned.

CSO: 5100

TERMINATION OF U.S.-INDIAN NUCLEAR AGREEMENT URGED

Bombay THE TIMES OF INDIA in English 20 Mar 80 p 8

[Article by Inder Malhotra]

[Text] Almost all delicate diplomatic negotiations involve an element of hypocrisy and double-talk. But these unhappy attributes of diplomacy have been carried too far in the uneasy Indo-U.S. nuclear dialogue. This has been the case particularly since Mr. Morarji Desai was inveigled into accepting the hare-brained scheme to appoint an international panel to devise an acceptable version of full-scope safeguards from which even he had to wriggle out later.

What has been going on of late is best illustrated by a brief, chronological account of events since early January when a new phase in the talks over the supply of the U.S. nuclear fuel to Tarapur began with Mrs. Gandhi's return to power.

President Carter sent her a long letter on the U.S. response to the Soviet intervention in Afghanistan in the course of which he also included a reference to the vexed question of fuel for Tarapur. According to authoritative sources, the U.S. President outlined a three-point approach. First, that the problems had become unduly complicated because of the difference between the two countries over full-scope safeguards insisted on by the U.S. nuclear Non-proliferation Act (NNPA) and that in an election year little could be done to narrow down these differences. Secondly, a future settlement could perhaps be facilitated if the two pending and overdue shipments could be sanctioned which he was willing to do. And this brought him to his third and most ticklish point--that the Indian government should publicly give such assurances on its nuclear policy as would dissuade the U.S. Congress from using its authority under the NNPA to overturn, within 60 days, the executive sanction of the two shipments for Tarapur.

Reaction

The Prime Minister's reaction understandably was that the question of Tarapur fuel--governed by an agreement between the two governments that has the force of a treaty--could not be mixed up with Afghanistan and other developments in the region. She therefore sent a reply to Mr. Carter on all subjects other than Tarapur which continued to be discussed through normal diplomatic channels. On a visit to New Delhi in some other connection, the chief U.S. negotiator on nuclear issues, Mr. Thomas Pickering, took the opportunity to discuss the vexed question with the chairman of the Atomic Energy Commission, Dr. Homi Sethna, and the secretary in the external affairs ministry, Mr. Eric Gonsalves. Some days later Mr Consalves had occasion to go to Washington where the subject was gone over again.

During these discussions it was made clear that there was no question of this country accepting the U.S. demand for an assurance that it would abstain from peaceful nuclear experiments. For the rest, there was reluctance on New Delhi's part to reiterate its determination to implement the Tarapur agreement, in letter and spirit, if the U.S. also faithfully fulfilled its obligations. But if the U.S. reneged on its contractual responsibilities, it could not demand, as it evidently was in terms of President Carter's letter to Mrs. Gandhi, that the Tarapur atomic power plant should continue to be subjected to all the safeguards and restrictions that apply to it at present. More specifically, the curious U.S. suggestion that even in the event of its refusal to supply enriched uranium for Tarapur, India should not reprocess the plant's spent fuel was wholly unacceptable.

It was in this context that Mrs. Gandhi wrote to President Carter pointing out that India's commitment to using nuclear technology for purely peaceful purposes was complete and unreserved. That such use included peaceful nuclear experiments when required in the national interest and that there was no further need or scope for assurances by India on this subject. Assurances, she added, were required from the U.S. about the continuity of timely fuel supplies to Tarapur. This letter was despatched to Washington nearly a fortnight ago and some days later Mrs Gandhi had occasion to outline the government's nuclear policy in the Rajya Sabha.

Declaration

And yet, day after day, the official spokesman of the U.S. state department goes on declaring that the U.S. government is engaged in the "diplomatic process" of seeking some assurances from India. The unstated and unwarranted implication is that a decision by the White House on the pending shipments of 19.8 tonnes each is being delayed because of the time being taken by New Delhi to respond to Washington's request. The U.S. ambassador, Mr. Robert Goheen, has made the confusion worse confounded. He has declared in Calcutta that the U.S. Government has sought some "clarifications" about Mrs. Gandhi's recent statement on nuclear policy. But inquiries from south block indicate that no query has been received in this connection either here or in Washington.

Clearly, the U.S. authorities are engaged in an attempt to create an impression as if, over Tarapur, the ball is in India's court rather than America's though, in fact, the position is precisely the reverse.

They have also drawn another red-herring across the trail by inspiring reports in American newspapers that if only India would go to the World Court to enforce its right to get the nuclear fuel for Tarapur, this would give President Carter enough leverage to sanction the overdue shipment. The sympathetic camouflage notwithstanding, a more sinister trap cannot be thought of.

For one thing, if anyone in New Delhi is foolish enough to take the issue to The Hague, the whole matter can hang fire for years, instead of being expedited. For another, such a step would give the Americans an excellent opportunity to press this point about the reprocessing of Tarapur fuel. Indeed, implicit in the news items in question is the threat that the U.S. might on its own go to the World Court to prevent the reprocessing of the spent fuel.

It is crystal clear therefore that, whatever the pretence on either side, the Indo-U.S. nuclear dialogue has reached its moment of truth. There is no meeting ground between the two sides and the sooner this fact is amicably recognised by both sides the better for all concerned. A friendly termination of the agreement which has already broken down for all practical purposes--would be more beneficial than the prolongation of an acrimonious debate which already threatens to embitter the overall relationship between the two countries.

Brought Home

During the diplomatic exchanges in recent weeks, it has been brought home to the U.S. that in one essential respect the framework of the nuclear dialogue has become worse than before. Formerly, the U.S. was guilty of applying double standards, treating the nuclear haves, including China, most favourably and trying to get the nuclear have-nots short shrift. Now it is adopting triple standards. For, while the pressure on India to accept full-scope safeguards in one form or other continues, the U.S. is evidently reconciled to a nuclear Pakistan. In any case, even if the U.S. concern over Pakistan's nuclear ambitions remains undiminished as some American sources claim, the resumption of U.S. economic and military aid to Pakistan is no longer conditional on the kind of assurances on nuclear policy that are being so insistently sought from this country.

In the event of the termination of the Tarapur agreement, one way or other, it would be futile to go to third parties for enriched uranium though this course has been suggested by Mr. Goheen at Calcutta and others earlier. This is because even other supplies are almost certain to insist on unacceptable safeguards and assurances. It is no doubt true that the development of the alternative mixed-oxide fuel cycle indigenously will take time. Even so, this is India's best bet. In the meantime the spent fuel can be easily reprocessed at the facility for this purpose that has been lying idle and the Tarapur power plant kept going at a lower capacity than at present by the fuel in the pipeline.

If the Americans are really keen to prevent this denouncement, they will have to come forward with adequate nuclear fuel immediately so that Tarapur can be kept going until the USA's obligations to this country and its law on non-proliferation can be no other basis for continuing the conversations which have already turned into a dialogue of the deaf.

CSO: 5100

BRITAIN'S ROLE IN NAMIBIAN ROESSING COULD SHAKE UN PLANS

Victoria NATION in English 29 Mar 80 p 5

[Article by Roger Murray]

> [Text] Allegations about Britain's role in the development of Roessing uranium in Namibia could shake African confidence in the credibility of the five-nation group which is trying to bring about a settlement of the Namibian problem. As well as Britain, two other members of the Group, France and West Germany, are customers for Roessing uranium. Gemini News Service reports.

Britain's position as an impartial mediator in the international negotiations for a settlement in Namibia could be compromised by allegations about its role in the development of the Roessing uranium mine in Namibia.

Roessing, the world's largest uranium mine, was brought into production in 1976 at a cost of L120m by the British mining company Rio Tinto Zinc Ltd. It has an output of 5,000 tons a year--one-sixth of total Western production.

A pamphlet recently published by the London-based pressure group, CANUC (Campaign Against the Namibian Uranium Contracts) alleges that successive British governments were initially misled by RTZ and civil servants into signing contracts for the delivery of uranium oxide from Roessing for use in the British nuclear power programme in the latter 1970s to mid-1980s.

As a result, the British Government has found itself constantly forced to defend RTZ's action in developing the Roessing mine despite the ruling of the World Court in June 1971 that South Africa's occupation of Namibia was illegal, and United Nations calls to member states that they should have no economic dealings with South Africa implying recognition of South African occupation of Namibia.

CANUC claims that in 1968, when a first contract for the supply of 6,000 tons of uranium was signed, ministers were under the impression that the source of supply was to be RTZ's 51 percent-owned Canadian subsidiary under contract to supply oxide to Britain.

In 1970, when a second contract for the supply of more than 1,000 tons was being negotiated, the Cabinet met to discuss the issue, but was under the impression that only one contract existed, which had already been signed and therefore could not be revoked.

It was this second contract which ensured RTZ access to the necessary loan finance to develop the Roessing mine. It was only in the early 1970's, after the necessary negotiations over long-term contracts, that construction work on the open-cast mine began, although prospecting had started in 1966.

The former Minister of Technology in the 1966-1970 Labour Government, Tony Benn, subsequently stated in a letter to the "Guardian" newspaper in 1973 that neither RTZ nor the UK Atomic Energy Authority had been "altogether candid" with the previous Labour Government, and that a future Labour Government would cancel the contracts.

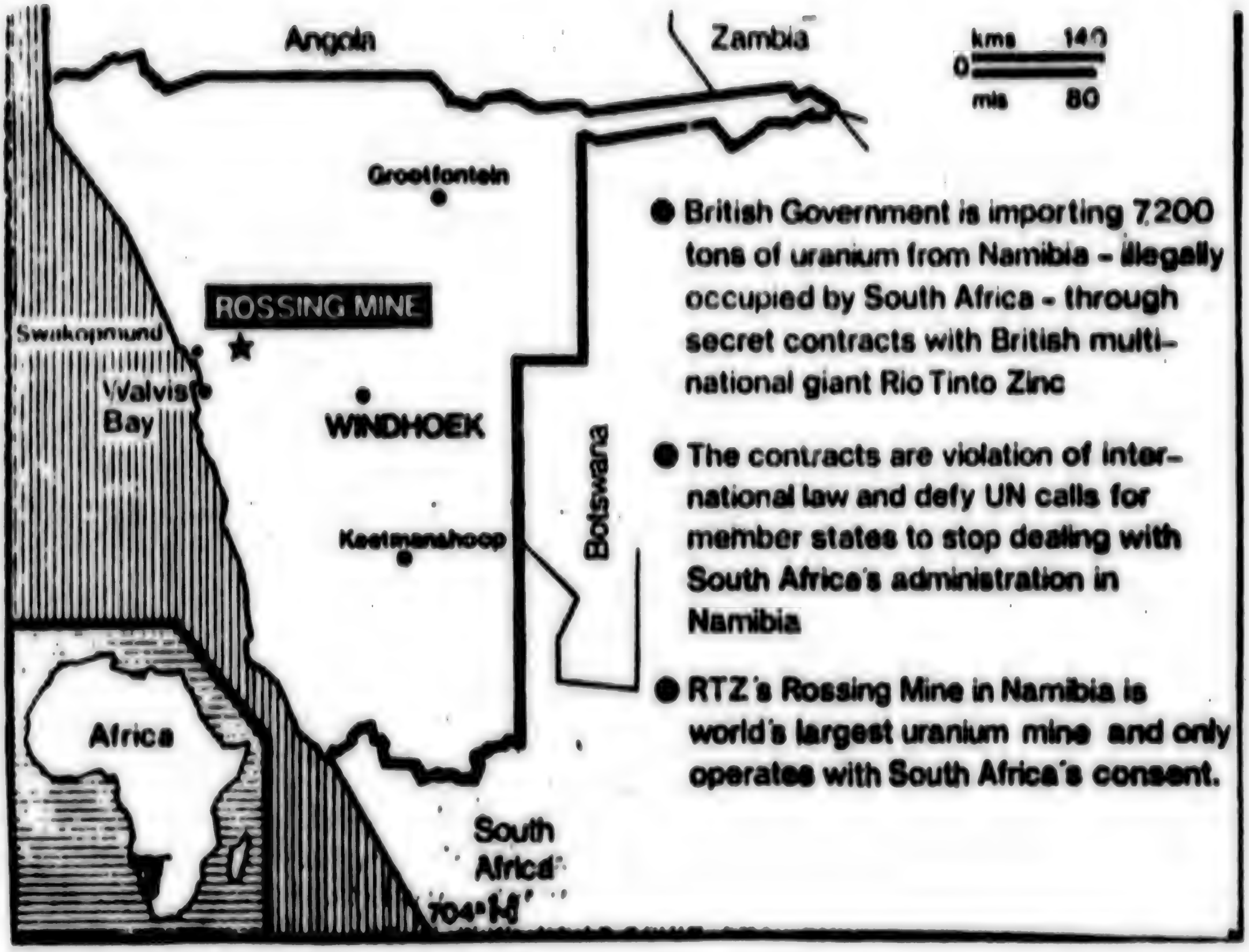
By the time Labour returned to power in February 1974, responsibility for uranium procurement had been transferred to the Department of Energy and British Nuclear Fuels, a subsidiary of the AEA.

The Foreign Office announced that a review of British Government policy towards Southern Africa had been initiated. However, when the results of that review were put before the House of Commons in December 1974, by the then Foreign Secretary, James Callaghan, no reference to cancellation of the Roessing contracts were made. The Government announced that it accepted the findings of the World Court on Namibia, and henceforward would regard South Africa's presence in Namibia as "unlawful" and would cease to promote all commercial contracts.

Eight days after the statement the United Nations Council for Namibia, recognised by the UN as the lawful "de jure" authority for Namibia, published Decree No 1 "For the Protection of the Natural Resources of Namibia."

This ruled that all mining, processing and export of Namibia's natural resources under licence from South Africa was null without the consent of the Council; that any vehicle, ship or container found to be carrying Namibian products was subject to seizure, and that any entity or corporation found to be contravening the decree would be held liable in damages to any future Government of an independent Namibia.

By not stating that it regarded the South African presence in Namibia as "illegal," Britain seems to have tried to avoid being in direct contravention of the provisions of the decree. CANUC claims that as a party to a contract with Roessing, Britain, as well as RTZ, could be held accountable by a future Namibian Government.



- British Government is importing 7,200 tons of uranium from Namibia - illegally occupied by South Africa - through secret contracts with British multi-national giant Rio Tinto Zinc
- The contracts are violation of international law and defy UN calls for member states to stop dealing with South Africa's administration in Namibia
- RTZ's Rossing Mine in Namibia is world's largest uranium mine and only operates with South Africa's consent.

Sean MacBride, former UN Commissioner for Namibia and instigator of the decree, says in a forward to the CANUC Pamphlet that workers at Roessing "are paid grossly discriminatory wages and suffer appalling working conditions."

Another twist to the story was added by subsequent statements of British ministers in the 1974-79 Government that there was no alternative to supplies from the Roessing mine, which was therefore a vital British national interest.

It would appear that no real checking on alternative sources of supply was made, and that civil servants concerned were reluctant to provide relevant information.

In fact, CANUC claims, Rio Algom was in the process of expanding its production, and made several additional contracts with American purchasers about this time, showing that if necessary, the contracts could have been switched to supplies from Rio Algom.

The complete history of the signing of the contracts remains, like the issue of oil sanctions over Rhodesia, to be cleared up.

In 1976, RTZ's managing director, Sir Mark Turner, stated that the British Government had all along been aware that Roessing was to be the source of supply. There was only a "back-up" arrangement in respect of Rio Algom, which fell away, once the development of the Roessing mine was guaranteed.

Since the election of a Conservative Government last May no further information on the supply of uranium to Britain from Roessing has been published. However, details of a clandestine supply route operated by the French cargo airline UTA and South African Airways in 1978-79 have since been revealed.

Uranium oxide was flown out from Windhoek with a stopover at Libreville in Gabon, to Paris for delivery by truck to British and French uranium processing plants. The arrangement, organised by Rio Tinto Zinc Mineral Service Ltd, based in Switzerland, came to an end last year, and uranium is now being delivered by sea.

As a result of these allegations, new pressure is likely to be brought on Britain by way of the United Nations to suspend or cancel the contracts.

The issue is likely to shake the confidence of the African states at the UN in the credibility of the Western contact group of Britain, France, West Germany, Canada and the United States, since as well as Britain, France and West Germany are customers for Roessing uranium.

Lord Carrington, the British Foreign and Commonwealth Secretary, was a nonexecutive director of RTZ from 1974-1979. He resigned on being appointed Foreign Secretary.--GEMINI

About the author: Roger Murray has worked in London since 1973 as a freelance journalist and researcher, specialising in Southern African affairs and economic issues. He writes regularly for NEW AFRICAN and ECONOMIC INTELLIGENCE UNIT and broadcasts for the BBC. In 1977/78 he was consultant to the Commonwealth Secretariat, and currently for the United Nations, on Namibian economic issues.

CSO: 4420

NIGERIAN URANIUM DELIVERIES TO LIBYA, PAKISTAN

Paris AFRIQUE DEFENSE in French Feb 80 p 12

[Text] In recent years, Niger has sold 110 tons of uranium to Pakistan and 400 tons to Libya, according to Pecqueur, general administrator of the French AEC (Atomic Energy Commission). According to President Kountche, chief of state of Niger, these deliveries were made in conformance with undertakings made with the IAEA (International Atomic Energy Agency) and in conformance with the Nuclear Nonproliferation Treaty.

The use of these supplies is under theIAEA's control, Recquer revealed, according to an agreement between Niger, nonsignatory of the treaty, and Libya, a signatory, and through a trilateral undertaking between the Niger authorities, IAEA and Pakistan. The agency itself has never said that improper use of this uranium had been made.

In fact, the French AEC administrator recalled, a country which envisages equipping itself with nuclear weapons must master the techniques of enriching uranium. Pakistan, according to Pecqueur, certainly disposes of uranium deposits, and 100 tons of the mineral would permit it to extract 700 kilograms of uranium 235, necessary for military use.

Two uranium mines are operated in Niger, by SOMAIR and COMINAK [expansions not known], respectively. The capital of these companies is held by the Niger Government (25 percent), by COGEMA [Cie generales des matieres nucleaires], an affiliate of the French AEC (34 percent), and by other French and foreign (Japanese, Spanish, West German...) groups.

Each of the associates has the right to deliveries of uranium proportional to its financial participation. The Niger Government decides on the conditions for export of the production and controls the sale of its share, according to the French AEC general administrator.

5586
CSO: 5100

FRENCH GROUP PROPOSES ENRICHMENT PLANT FOR AUSTRALIA

Canberra THE WEEKEND AUSTRALIAN in English 1-2 Mar 80 p 14

[Article by Stephen Calder]

[Text] FRANCE'S eagerness to heighten its nuclear power generation capacity, and its view that Australia can play a major part in the realisation of this dream, were more than evident this week.

So too were French tact, diplomacy and taste.

The CEA, or atomic energy commission, presented journalists with a glossy, plastic-covered publication explaining the virtues and the impact of a major uranium enrichment plant, and showed considerable restraint in fielding a few aggressive queries from the anti-uranium press.

The occasion was a press conference at which an eight-man CEA delegation explained the reasons for their 10-day visit to Australia and outlined their proposal for an enrichment plant in this country.

Essentially, the proposal is for a $1500 million plant capable of producing enough nuclear fuel to supply 30 atomic reactors.

The anti-nuclear press was assured that no nuclear waste is generated by uranium enrichment plants, that the plant envisaged was not capable of producing weapons-grade material, and that the project would not go ahead without an agreement on safeguards between the two countries.

In addition, the delegation told the meeting that the French did not intend to supply uranium enrichment technology to countries other than Australia, and would not supply the finished product to other countries without Australian consent and then only if a safeguards agreement existed between Australia and the third country.

The team, headed by Mr Jean-Paul Devilliers, stressed it had come to Australia at the request of the Australian Government.

France's intensive push into nuclear power is well known.

It wants to gain independence from imports of crude oil, and plans to lift the nuclear-generated proportion of its electricityooutput from 15 per cent at present to 50 per cent by 1985.

Sources of fuel for such a massive project are a major hurdle. At present, most French uranium comes from politically-unstable Africa.

So French companies are looking for uranium all round the world, and Electricite de France (the Government-owned utility) with its nuclear generating affiliate, COGEMA, made a joint bid for the Federal Government's half-share in the Ranger uranium deposit when it was up for sale.

Electricite de France already has seven nuclear power plants, with 13 more under construction or on the drawing board. The country sees Australia as a logical source of much-needed uranium, and would rather be involved in development of deposits than play a passive part as a mere buyer.

Obtaining Australian uranium would only be a first step for the French in meeting their nuclear fuel requirements. The yellowcake then must be enriched to be useful in nuclear reactors.

France has its own enrichment plant, but world demand for enriched uranium is growing. The enrichment plants in operation, or being built, will not be sufficient to meet demand beyond the end of the 1980s, according to CEA projections.

Demand for enriched uranium (measured in separative work units, which combine the quantity of natural uranium with its degree of enrichment) is estimated at just under 20 million SWU in 1980, but will be more than 30 million SWU by 1985 and over 50 million SWU by 1990.

At current levels of growth, world output of enriched uranium by 1990 will be only 40 million SWU.

The output of the Australian plant would be 3 million SWU after the first stage is completed and 5 million to 6 million SWU with a full-scale plant.

The first stage would produce 800 to 1000 tonnes of enriched uranium a year, or enough to supply 30 nuclear reactors with fuel.

A second French plant to enrich uranium would be postponed if the French took a substantial interest in an Australian project.

Some of the more obvious questions asked at the conference were carefully parried: the siting of the plant and its cost are among those details still to be thrashed out.

Queensland is keen to be in the running, but talks were also held this week with the South Australian and Victorian governments.

Predictably in view of its attitude to uranium mining, the NSW Government was left out of this round of talks. CEA had talks with NSW about a year ago.

According to the delegation, the siting is not critical, although copious amounts of electricity would be needed (2500 megawatts for a full-scale plant) and the site would need to be about 300ha (740 acres) in size.

Cooling of the plant is facilitated if plentiful water is available, but dry cooling is possible.

As far as cost went, CEA's international affairs director, Mr D. de Galassus, said that $1500 million had been established as a round figure for European conditions.

As well as State governments, the CEA delegation also had talks with Australian uranium companies which are members of the newly-formed Uranium Enrichment Group of Australia – BHP, CSR, Peko-Wallsend and Western Mining Corp.

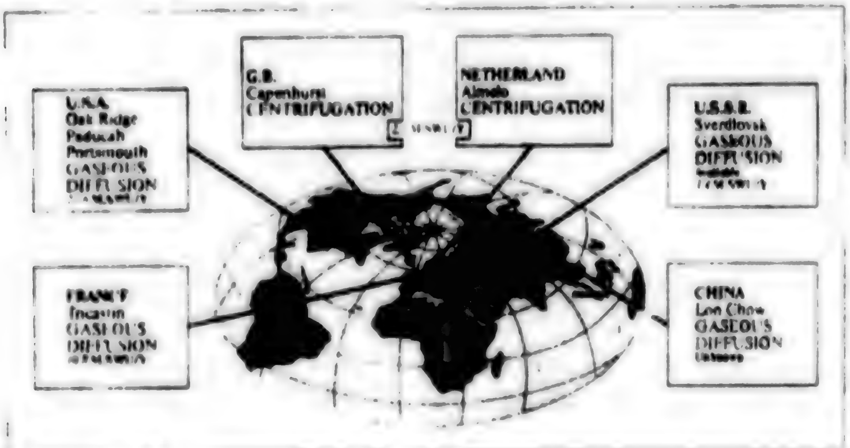
On the technical side, the matter is rather complicated, since enriching uranium involves a process of more than 1000 individual steps.

Put as simply as possible, uranium ore is converted to a gas through fluoridation, at which point the lighter weight of the critical isotope, U235, is used to advantage.

The only by-product, the depleted uranium, is less dangerous than uranium ore and can be fed back into the process or used in fast breeder reactors.

The uranium ore, originally about 0.7 per cent U235, is enriched to about 3 per cent U235. This is the grade needed for a light water reactor, the most widespread type of nuclear energy producer.

Australia's plant would be capable of producing enriched uranium of up to 5 per cent U235, compared with a grade of 50 per cent needed to make nuclear weapons.



CSO: 5100

NEW ZEALAND SEEKS FRENCH PROOF OF SAFETY OF NUCLEAR TESTS

Still Waiting

OW261641 Hong Kong AFP in English 0618 GMT 26 Mar 80 OW

[Text] Wellington, March 26 (AFP)--Five months after the first request, New Zealand is still waiting for the French Government to provide detailed information on the safety monitoring system at its Mururoa Atoll nuclear testing site.

Foreign Affairs Minister Brian Talboys said today the request was made at his meeting in Paris last November with French Foreign Minister Francois-Poncet. Mr Talboys said New Zealand wanted "solid, factual information" on the monitoring programme at the testing site, and about the accidents at the site last year.

In one, a local tidal wave swept over the atoll after a nuclear blast was triggered. The other accident, reported in a laboratory, resulted in two deaths.

The minister said the New Zealand Ambassador in Paris had made a further approach for the information on March 24, unaware the French had triggered their latest underground blast only hours before. "We want solid information," Mr Talboys said. "We want it so we know what the facts are." Meanwhile the French Embassy in Wellington has had two strong protests lodged with it over France's latest nuclear test. The country's environment-based Values Party warned "it was vital for world peace and for the health and safety of present and future generations that nuclear testing cease now."

The Greenpeace Organisation demanded data on the safety of the French test programme. Spokesman Tom Donohue claimed an embassy official told the group: "You will have to take our word for it," when asked if the nuclear programme was safe. "I don't believe France can produce data proving the tests are safe," Donohue said. "The French don't want anybody to know what's happening on the atoll." Greenpeace was calling on governments throughout the South Pacific to demand the French either supply data proving the tests are safe--or halt its nuclear testing programme.

French Minister's Pre-Test Denial

OW240804 Paris AFP in English 0735 GMT 24 Mar 80 OW

[Text] Papeete, March 24 (AFP)--Defence Minister Yvon Bourges has dismissed as "without foundation" news reports that France is planning to carry out another nuclear test at Mururoa. Mr Bourges made the denial shortly after arriving in Tahiti on Thursday for a three-day visit.

Before leaving the island yesterday for Mururoa, 1250 kms (780 miles) to the south-east, the minister stressed that every possible safety precaution was taken by France before conducting nuclear tests. He would not say whether any kind of test would take place during his visit. Mr Bourges was leaving Mururoa today for the island of Hao 950 kms (about 600 miles) east of Tahiti, where France has an advanced experimental centre. He then goes on to New Caledonia, last stop of his current Pacific tour.

New Zealand Report

OW250303 Hong Kong AFP in English 0256 GMT 25 Mar 80 OW

[Text] Wellington, March 25 (AFP)--The French have triggered another nuclear blast at their Mururoa atoll underground testing site in the South Pacific, according to a New Zealand Government official today. New Zealand monitoring stations on both Rarotonga in the Cook Islands and here recorded the explosion at 7.37 am New Zealand time March 24 (1937 GMT March 23).

Government seismologist Dr Warwick Smith said today the blast was about 50 kilotonnes in power, a test explosion he described as in the middle level of French tests at the atoll site. Dr Smith said the latest explosion was the 29th in the series of underground tests monitored by New Zealand since the program began in 1975. "There may have been others, but we know of 29 test firings," Dr Smith said. "Other recent blasts have been of about 6 kilotonnes yield (March 3) and 2 kilotonnes (Feb 24)." The latest blast had been "rather larger than recent explosions, but by no means the largest." The New Zealand Government had been informed immediately of the test, he added.

Submarine Visit Protested

OW260747 Hong Kong AFP in English 0655 GMT 26 Mar 80 OW

[Text] Perth, March 26 (AFP)--Anti-nuclear campaigners staged a demonstration in the heart of the city here today over the arrival of the nuclear-powered American submarine USS Haddock. Dressed in white outfits, they carried replicas of geiger counters during the protest in the busy Hay Street Mall. The demonstrators handed out so-called anti-radiation pills to shoppers. A small group of the protestors had their names taken by police. A spokesman confirmed six people were interviewed "for the record and as a matter of identification". A spokesman for the protestors, Mr Patsy Malloy said his group--which called itself the Indian Ocean Zone of Peace Coalition--did not object to the presence of the U.S. sailors, but opposed the visit of vessels which were nuclear powered or which carried nuclear weapons.

Plans by anti-nuclear protestors to demonstrate with small boats in Cockburn Sound when the Haddock arrived at the Garden Island Base were called off after the area had been cleared of unauthorised craft. Police kept a close watch on launching ramps.

The six-day visit by the Haddock followed closely to the announcement that Garden Island is to be upgraded to a base port that may be shared by U.S. naval vessels.

CSO: 5100

DANISH ANTINUCLEAR POWER GROUP PROTESTS TO GDR OVER PLANT

Copenhagen INFORMATION in Danish 3 Mar 80 p 3

[Text] The Organization for Information on Nuclear Power (OOA) has sent a sharp protest to the government of the German Democratic Republic over the rejection by the East German authorities to respond to inquiries regarding the nuclear power plant of Greifswald in the German Democratic Republic. The nuclear power plant is located 120 kilometers from Falster and 140 kilometers from Bornholm.

Both the Danish government and the Organization for Information on Nuclear Power have asked for information on a number of security technical questions regarding Greifswald without having received an answer.

On the other hand, the German Democratic Republic has recently stated that they intend to double the capacity of the plant by supplementing the four existing reactors (each of 400 megawatts) by an additional four reactors of the same size.

The Organization for Information on Nuclear Power writes in its letter that it "most sharply protests against the complete disregard on the part of East German authorities of reasonable Danish demands for information regarding the nuclear power plant of Greifswald."

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CSO: 5100

GDR REPORT EXPOSES FRG-SOUTH AFRICA NUCLEAR COOPERATION

DW241510 East Berlin Domestic Service in German 1115 GMT 24 Mar 80 DW

[Gerd Schulze report on documentation published by the FRG's antiapartheid committee on Bonn-Pretoria cooperation in the nuclear field]

[Text] Once again all the denials and the belittling that Bonn has been doing for years turns out to be abortive. The facts are too unequivocal. Here is what has just become known: The Bremen company Varian Mat will deliver more isotope-measuring instruments to South Africa which are needed for the enrichment of uranium. As is generally known, enriched uranium is needed for the production of atomic bombs. Besides, the Magirus Deutz corporation will deliver 3,000 military trucks to Pretoria, while three other companies will build a factory for engines and transmissions in South Africa whose buyer again is the army of the racists.

As I said, these are the latest facts about a state of affairs that has been known for a long time. In a brochure which even some FRG mass media said was not to be considered serious, the Federal Government made the useless attempt to deny any military-nuclear cooperation even for the past. The FRG's anti-apartheid movement has now proved that military deliveries were simply declared civilian deliveries, while deliveries via third countries are completely hushed up.

Hence, blunt demagogy for the sake of camouflaging the fact that the FRG has constantly furthered this cooperation to the present, ever since the conclusion of the secret military agreement with Pretoria in 1961. Just a few months ago, the liberation movement of South Africa, the African National Council, submitted a list of nearly 100 FRG corporations which are involved in the military-nuclear business with South Africa through their subsidiaries. And other documents, too, reveal that FRG companies, which in part are under government control, are participating in the building of the South African nuclear industry; companies such as the Society for Nuclear Research, the Steag, the Veba corporation, the Ruhrkohle corporation, and the Degussa corporation, to list just a few.

Technical know-how was readily turned over, and beyond that, South African specialists and military experts are being directly guided. Ultimately, this cooperation, also via Israel, led to a point where last fall South Africa succeeded in exploding a nuclear bomb of its own, all for the obvious purpose of insuring for the future that fat business with apartheid for imperialist monopolies.

It is understandable that Bonn wants to play these things down, since this involves the support to a regime which is being ostracised throughout the world for its inhuman apartheid policy. Besides, there is the UN Security Council decision on an arms embargo against South Africa. But it has turned out now on the occasion of the 20th anniversary of the massacre of Sharpville in South Africa again that the Federal Republic will be unable to wriggle out of the crossfire of international criticism.

CSO: 5100

FRG MISSION IN ARGENTINA TO 'CONCLUDE' NUCLEAR TALKS

PY232348 Buenos Aires NOTICIAS ARGENTINAS in Spanish 1614 GMT 23 Mar 80 PY

[Excerpts] Buenos Aires, 23 Mar (NA)--The members of a high-level FRG nuclear technical mission arrived here today in order to conclude the negotiations which will make it possible for that nation to approve the sale to Argentina of the nuclear reactor to be installed at the Atucha 2 central.

The group, which brings the decision of the special German cabinet regarding this delicate question, is headed by Per Fischer, under secretary for international economic relations of the FRG Foreign Ministry. The other members are Hans Schill, chief of the energy department of the Economy Ministry; Werner Ronet, chief of the science and technology department of the Foreign Ministry; and Reinhard Loosch, science and technology under secretary of the Research and Technology Ministry.

The arrival of this mission was announced last Friday by Gunther Van Well, FRG foreign relations secretary, after he held talks for 2 days with members of the national government, among whom were President Jorge Videla and Foreign Minister Carlos Pastor.

Van Well also met the air force and navy commanders, Lt Gen Omar Graffigna and Adm Armando Lambruschini, respectively, and with Castro Madero, president of the National Atomic Energy Commission.

On this occasion, Van Well explained that his mission was to learn about the Argentine political position regarding nuclear subjects and that, after fulfilling that mission and reporting to the German cabinet, it had been decided to send the technical commission which arrived today to talk with their Argentine counterparts about those subjects.

On that earlier occasion, unofficial spokesmen said that the FRG would probably stop opposing the sale to Argentina of the nuclear reactor for Atucha 2, an opposition it has maintained in the last few months despite long negotiations on various levels.

CSO: 5100

ARGENTINE COMMUNIQUE RELEASED ON NUCLEAR TALKS WITH FRG

PY272255 Buenos Aires NOTICIAS ARGENTINAS in Spanish 2135 GMT 27 Mar 80 PY

[Text] Buenos Aires, 27 Mar (NA)--The Public Information Secretariat of the Presidency today released to all news media a report which it gave yesterday only to the official press agency TELAM regarding the progress of the Argentine-FRG talks on the delivery of a nuclear reactor for the Atucha 2 central.

No explanation was given on the reasons for this advance report through the state press agency, which caused visible annoyance among the other news media, particularly those which are not subscribers of the TELAM service .

It should also be pointed out that the report given to the news media in general was given to newsmen accredited at the Casa Rosada on paper with no letterhead or signature. The text of the report says:

"The Public Information Secretariat reports that the meetings held in Buenos Aires on 24 and 25 March between representatives of the Argentine Government headed by Vice Adm Carlos Castro Madero, president of the National Atomic Energy Commission [CNEA], and an FRG government delegation presided over by Mr Per Fischer, under secretary for international economic relations, have led to a satisfactory agreement regarding the granting by the FRG government of the export permit for the nuclear reactor for the Atucha 2 central and related equipment, materials and technology.

"When this agreement has been approved by the respective governments, it will facilitate continued Argentine-FRG cooperation in the nuclear field."

The FRG embassy in Buenos Aires yesterday released a three-point communique saying that the results of the 2-day talks between Fischer and the Argentine officials "will now be submitted to the two governments for their concurrence."

Fischer returned yesterday to Germany after 3 days of intense negotiations with CNEA members to discuss the conditions of delivery of the nuclear reactor for Atucha 2 in light of the fact that Argentina has not ratified the Nuclear Nonproliferation Treaties.

Following a worldwide policy on this matter, the U.S. Government has recently put pressure on the Bonn government not to authorize the sale of the reactor for Atucha 2.

CSO: 5100

PORTUGAL'S NUCLEAR PLANNING GROUP APPLICATION TO BE ACCEPTED 'SOON'

LD210855 Lisbon EXPRESSO in Portuguese 15 Mar 80 pp 1, 20 LD

[Unattributed report: "Portugal Able to Keep Nuclear Secrets"]

[Excerpt] Atlantic alliance experts have concluded that Portugal has "sufficient security conditions" to be able to have access to NATO's nuclear secrets, following a test carried out in Lisbon in the middle of last year, EXPRESSO has learned from a reliable military source. The team of alliance experts visited the Portuguese capital at the suggestion of the armed forces chief of general staff, General Ramalho Eanes, and the outcome of the tests carried out at the time indicates that Portugal's recent application to join the Nuclear Planning Group will be accepted very soon.

A source close to the Ministry of Defense acknowledged this week that [Minister of Defense] Adelino Amaro da Costa is awaiting a formal invitation from NATO to take part, with his counterparts in the alliance countries, in the Nuclear Planning Group meeting scheduled for May in Bodo in northern Norway. Amaro da Costa's presence at this meeting would mark Portugal's entry into a body whose doors were close to it in 1974-1975 as a result of pressure from NATO circles which feared at the time that the alliance's nuclear secrets would not be in good hands.

CSO: 5100

FINLAND'S DEFENSE MINISTER OPPOSES PURCHASE OF SOVIET REACTOR

LD211103 Stockholm DAGENS NYHETER in Swedish 19 Mar 80 p 6 LD

[Correspondent report: "Minister Wants To Halt Purchase of Reactor From Soviet Union"]

[Text] Helsinki, Tuesday 18 March--Finland's defense minister, Lasse Aikas, Central Party (KP), says "no" to plans to buy a 1,000-megawatt nuclear reactor from the Soviet Union. He considers that instead Finland ought to concentrate on alternative domestic energy sources.

Minister Aikas said in a speech recently that Finland is approaching the top of the international league in the production of nuclear energy. Therefore, it seems strange, to say the least, that a further sharp increase in the nuclear share of total energy production is planned.

He is wholly of the opinion that the power to make final decisions in matters of energy policy, especially in all questions of nuclear power, should be transferred to the Finnish parliament.

CSO: 5100

BRIEFS

USSR HEAVY WATER TO INDIA--Moscow, 20 Mar (UNI)--India will soon start receiving heavy water from the Soviet Union, according to authoritative sources here. The two countries have concluded an agreement under which the Soviet Union would provide India 250 tonnes of heavy water in any of its atomic power plants. It is primarily earmarked for the Rajasthan atomic power station. The new contract was signed by Indian Atomic Energy Department and Soviet "Tekhsnabexport." [Text] [BK261611 Delhi INDIAN EXPRESS in English 21 Mar 80 p 1 BK]

GANDHI ON U.S. FUEL SUPPLY--The prime minister has said that as long as the cooperation agreement of 1963 subsists, the U.S. Government is obliged to make available the enriched uranium for use as fuel for the Tarapore reactor. In a written answer in the upper house of Parliament today, Mrs Gandhi said India is correspondingly precluded from operating the Tarapore reactor on any other fuel. In the case of stoppage of fuel supplies by the United States, one of the alternatives would be to operate the Tarapore reactor on indigenously fabricated mixed oxide fuel. She said all aspects with respect to the continued operation of the Tarapore atomic power station are under study. [Text] [BK271125 Delhi General Overseas Service in English 1000 GMT 27 Mar 80 BK]

POSSIBLE ARGENTINE-USSR COOPERATION--Buenos Aires, 21 Mar (NA)--Argentina will study the possibilities of cooperation in the nuclear field with the USSR. This was revealed today by Jorge Coll, secretary general of the National Atomic Energy Commission (CNEA), who left for Moscow at the invitation of Soviet officials. "You know that the Argentine nuclear plan is important in its volume, and cooperation can come from different areas," Coll said to reporters just before leaving for the Soviet capital. He indicated that the purpose of his trip is to personally accept an invitation of the Soviet Union for Argentine experts to visit Soviet nuclear plants and to study in principle the possibilities of nuclear cooperation between the two countries. [Excerpt] [PY212141 Buenos Aires NOTICIAS ARGENTINAS in Spanish 2120 GMT 21 Mar 80 PY]

EURATOM OFFICIAL IN AUSTRALIA--A senior representative of the European Economic Community's uranium authority, EURATOM, Mr J.P. (Menikan), has arrived in Canberra for talks with government officials on policies relating to supply of Australian uranium. Mr (Menikan) is director general of EURATOM's supply agency. He will have talks with officials of the Department of Trade and Resources and the Uranium Export Office. Mr (Menikan) will also meet mining company representatives to discuss their production schedules. The talks are the first of regular meetings planned between Australia and the EEC which were initiated by the prime minister, Mr Fraser, after discussions last year with the president of the European Commission, Mr Roy Jenkins. /Text/ /OW271441 Melbourne Overseas Service in English 1230 GMT 27 Mar 80 OW/

CSO: 5100

JAPANESE COMPANIES REPORTED INTERESTED IN AUSTRALIAN ORE

Melbourne THE AGE in English 14 Mar 80 p 15

[Text]

TOKYO, March 13. — Kansai Electric Power Co. has declined to comment on a report in the economic daily 'Nihon Keizai' that a group of four Japanese companies led by Kansai will initial an agreement with the Australian Government to buy a 10 per cent interest in the Ranger uranium project in the Northern Territory.

The paper said the acquisition would enable the Japanese group to get 1000 short tons of yellow cake a year, starting around 1982.

The cost was not mentioned.

The paper said the group included C. Itoh and Co., Kyushu Electric Power Co., Shikoku Electric Power Co. and Kansai Electric.

The Australian Government wants to sell its half share of Ranger. The other half is owned by Peko-Wallsend and EZ Industries.

CSO: 5100

SCIENTIST STRESSES IMPORTANCE OF NUCLEAR ENERGY USE

Melbourne THE AGE in English 12 Mar 80 p 26

[From Deirdre Macken in Sydney]

[Text] The only way the world can avoid "an enormous holocaust and the complete collapse of the system we know" is to use nuclear energy.

So said Sir Ernest Titterton in an august speech to the Institute of Directors' national conference in Sydney yesterday.

Sir Ernest, professor of nuclear physics at the Australian National University, said neither fossil fuels nor alternative energy sources would satisfy world demand.

He lambasted anti-uranium groups for their "iffy statements" and wrote off all forms of alternative energy sources.

"When fossil fuels run out, all nations will compete for the last few drops and so cause enormous tensions; the wheels of industry will stop, unemployment will go to 100 per cent and there will be an enormous holocaust.

"But all of this is unnecessary because we have all our needs in nuclear energy."

He said it was not a question of whether we should have nuclear power but when we should have it.

"Countries that leave uranium in the ground are not only exercising resources diplomacy but also run the risk that their reserves will become worthless."

In a fiery speech that was heartily received by the businessmen, Sir Ernest criticised anti - nuclear groups, saying they had no facts to back their arguments.

"If you listen to their arguments, you will notice that every sentence begins with an 'If'. It is 'If this' and 'If that'. They have no facts to back them."

The Three Mile Island nuclear incident, he said, was the biggest non-event ever.

"If all the workers in the plant had dropped dead at 4 o'clock there never would have been an incident. It was purely human error.

"I have no sympathy for the utility, it was badly managed with badly trained operators."

On alternative energy sources, he said, "There are no solar-powered stations, no wind-power stations; wave power has not been harnessed and there is only a tiny bit of geothermal power.

"Alternative fuels will never supply what the customed needs, they will merely be a supplement to the real energy source."

Sir Ernest not only vehemently supports nuclear power but also believes that after 2050, nuclear power fusion will replace fission.

While admitting that fusion has only been harnessed for use in bombs, Sir Ernest is confident science will find how to utilise fusion.

"All we have to do is bring the fusion reaction under control so it simmers not blasts," he said.

With the introduction of power breeders, he said, the world's reserves of uranium could be extended from 50 years to 20,000 years.

CSO: 5100

AUSTRALIA

MELBOURNE PHYSICIST COMMENTS ON NUCLEAR WASTE POTENTIAL

Melbourne THE AGE in English 13 Mar 80 p 3

[Text]

Research by a British physicist has shown that atomic bombs can easily be made from the plutonium byproducts of an ordinary nuclear power station.

Dr. Amory Lovins, a consultant physicist who has advised Friends of the Earth, several United Nations agencies, and the OECD, believes that 100 bombs could be produced each year from a single large reactor.

Alternatively, a country could clandestinely produce a few bombs a year from each reactor without its neighbors or the world scientific community knowing.

Dr. Lovins rejects the widely held assumption that reactor-grade plutonium is unsuitable for producing reliable nuclear weapons.

His research, published in the authoritative magazine 'Nature', has implications for uranium exporters such as Australia which try to use treaties to control the production of nuclear weapons in client countries.

Australia recently agreed to sell uranium to South Korea which is rapidly expanding its nuclear power programme.

Dr. Lovins said: "The implication that reactor-grade plutonium is not very dangerous or is unlikely to be attractive to Governments is wishful thinking.

By PETER ROBERTS

"Weapons-grade plutonium . . . can be readily produced in any power reactor without necessarily and significantly decreasing efficiency, increasing costs or being detected."

Dr. Lovins said that exposing uranium fuel rods in a reactor for a selatively short time produced almost pure weapons-grade plutonium. This could be done under the nose of an inspector.

In 1977 the US Congress Office of Technology Assessment said that a "small group of people, none of whom have ever had access to the classified literature" could build a weapon from this plutonium given "modest machine-shop facilities".

Alternatively, according to Dr. Lovins, a government could use reactor-grade plutonium which results from a normal burn-up of fuel.

Gifted amateurs could use this plutonium to produce a bomb small enough to fit inside a car. The bomb would have a yield and a predictability typical of the superpowers' arsenals of the early 1960s.

"Power reactors are not an implausible, but are rather potentially a peculiarly convenient type of large-scale military plutonium production reactor," Dr. Lovins said.

"Perhaps the greatest attraction of producing military plutonium in a power reactor is that it has a civilian cover and thus — until regional rivals follow suit — an apparently zero political cost."

Mr. Rob Robotham, a Melboure University physicist with 11 years experience in the nuclear industry, said yesterday there were uncertainties in even the best handling of uranium and plutonium.

More than 118 kilogrammes of plutonium was unaccounted for in one four-year period at Britain's Windscale nuclear facility, he said. It takes about seven kilogrammes of plutonium to make a bomb.

Mr. Robotham said that bilateral treaties controlling uranium exports were not worth the paper they were written on.

"Even if we had inspectors inside the plants the country could divert weapons material away and we wouldn't know about it," he said.

"If Australia is concerned about our uranium being used for weapons we have to avoid sending it away or make sure that all of the spent fuel comes back here for re-processing and disposal."

CSO: 5100

AUSTRALIA

PRIVATE ENTERPRISE TO DECIDE ON URANIUM ENRICHMENT

Advisory Council's Report

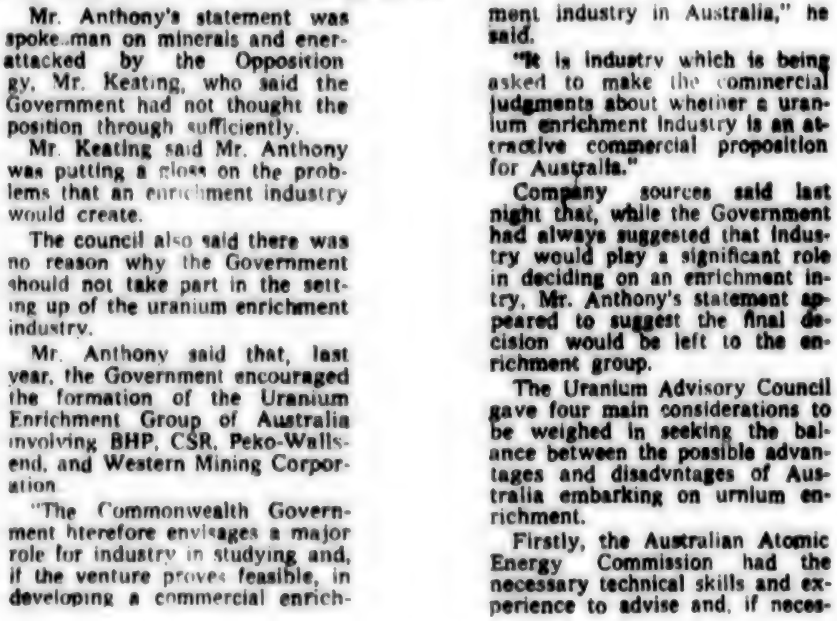
Melbourne THE AGE in English 6 Mar 80 p 1

[Report by Nigel Wilson]

[Text] Canberra.--Private enterprise will make the final commercial decision on Australia's entry into uranium enrichment, the Minister for Trade and Resources, Mr. Anthony, said yesterday.

He was presenting to Federal Parliament a report of the Uranium Advisory Council which said there was no valid reason why the Government should not proceed with a study of a commerical uranium enrichment industry in Australia.

But the council qualified its endorsement of the proposal, saying the Government lacked "the necessary economic and technical expertise" to assess the commerical prospects of such a plant.



Mr. Anthony's statement was spoke..man on minerals and ener- attacked by the Opposition gy, Mr. Keating, who said the Government had not thought the position through sufficiently.

Mr. Keating said Mr. Anthony was putting a gloss on the problems that an enrichment industry would create.

The council also said there was no reason why the Government should not take part in the setting up of the uranium enrichment industry.

Mr. Anthony said that, last year, the Government encouraged the formation of the Uranium Enrichment Group of Australia involving BHP, CSR, Peko-Wallsend, and Western Mining Corporation.

"The Commonwealth Government hterefore envisages a major role for industry in studying and, if the venture proves feasible, in developing a commercial enrichment industry in Australia," he said.

"It is industry which is being asked to make the commercial judgments about whether a uranium enrichment industry is an attractive commercial proposition for Australia."

Company sources said last night that, while the Government had always suggested that industry would play a significant role in deciding on an enrichment intry, Mr. Anthony's statement appeared to suggest the final decision would be left to the enrichment group.

The Uranium Advisory Council gave four main considerations to be weighed in seeking the balance between the possible advantages and disadvntages of Australia embarking on urnium enrichment.

Firstly, the Australian Atomic Energy Commission had the necessary technical skills and experience to advise and, if necessary, take part. The Australian industrial structure provided the basis for manufacturing some of the equipment needed for a centrifuge plant.

Not competent

Secondly, the council did not regard itself as competent enough to judge the profitability of the scheme.

Thirdly, the council expected an environmental impact study to be prepared.

Fourthly, the Federal Government would not allow a commercial enrichment plant without ensuring that it was subject to effective international safeguards, institutional controls, and surveillance measures.

Mr. Anthony said the Government was confident Australia was well placed to take part in any future expansion of world enrichment capacity.

Interest in co-operation had been expressed both in Australia and overseas concerning the development of the industry in Australia.

Mr. Anthony used the council report to bolster the Government's position on uranium enrichment, although the report does not specifically endorse the suggestion.

Remarks by Opposition

Sydney THE SYDNEY MORNING HERALD in English 6 Mar 80 p 16

[Report by Paul Ellercamp]

[Excerpt] The decisions follow a second report to the Government by the Uranium Advisory Council, which saw no valid reason why further moves should not be made to set up an enrichment industry.

It saw no reason, either, why the Government should not participate in a such an industry.

But it left several questions unanswered, leading the Opposition spokesman on minerals and energy, Mr Keating, to describe the report as "honest, but unsatisfactory."

Mr Keating also chided the Government for failing to resolve questions such as that of Government participation.

Among the uncertainties raised by the report are:

The future demand for uranium enrichment, especially with the development of breeder reactors;

The level and nature of Government participation in the industry;

The council's self-admitted inability to assess the commercial viability of the industry;

The lack of substantial employment opportunities in the industry.

Mr Keating said the council was saying clearly that it simply did not know the answers to these questions, yet the Government had gone ahead with the idea, without answering them itself.

CSO: 5100

URANIUM CUSTOMERS LOST DUE TO UNCERTAINTY

Canberra THE WEEKEND AUSTRALIAN in English 8-9 Mar 80 p 15

[Commentary by Financial Editor Bryan Frith]

[Excerpt] URANIUM candidate Pancontinental Mining has lost potential supply contracts valued at about $250 million because of the company's inability to proceed with development of its huge Jabiluka deposit.

And the lucky recipient is none other than South Africa which is jumping in to fill the gap left by Australia's inertia.

Pancontinental lost the contracts because none of the Australian uranium groups, including the two uranium operations currently being brought into production — Ranger and Nabarlek — has the power to enter into firm contracts.

Pancontinental has had tentative uranium contracts arranged for the past two to three years which would enable it to bring its Jabiluka uranium deposit, the largest in the Northern Territory, into production.

Two of the potential customers, both West German utilities, finally tired of the uncertainty and switched to South Africa where they are assured of supply.

The utilities needed the uranium in the early 1980s and had become increasingly restive at the delay in development work on Jabiluka.

There is still no indication that Pancontinental will get the go-ahead in the near future, and it would take at least three years from that point before it could start production.

However, Pancontinental is still hopeful that it might get the nod before the end of 1980 which could enable a start-up by late 1983 or early 1984.

The West German utilities, which had been persuaded on more than one occasion to keep their Pancontinental options open, finally decided they could wait no longer and have now given firm orders for South African uranium.

The orders foregone by Pancontinental were for 300 tonnes of uranium oxide a year for 10 years — a total of 3000 tonnes, which at present prices of $US40 a tonne values the lost contracts at $250 million.

From an operational viewpoint the deals would have accounted for 10 per cent of the initial production capacity of 3000 tonnes a year.

The danger is that the West German action is only the start. Other potential customers for Australian uranium could also decide that they cannot afford to wait any longer and must ensure that they have firm contractual arrangements.

Pancontinental's program envisages boosting annual production to 4500 tonnes as soon as the market allows and subsequently to 9000 tonnes a year.

The company has potential customers in France, West Germany, the UK, the US, Japan, Belgium and possibly Sweden.

It is believed that if Government approval were forthcoming it could tie up sales to commit the full production for the first stage of operations.

Pancontinental of course is not the only uranium group affected. Western Mining Corp with its Yeelirrie deposit in WA is in a similar position.

The Ranger partners, Peko-Wallsend and EZ Industries, which plan to float a company Energy Resources of

Australia to take over the operation, and Nabarlek's Queensland Mines, are in a somewhat different position.

The Nabarlek deposit has actually been mined and stockpiled and development work has started on Ranger, but neither group are yet in a position to enter into binding contracts.

The Australian Government must first decide that any potential contracts meet its policies, including its safeguard measures, on uranium sales.

Pancontinental has a further hurdle in that it must first negotiate an arrangement with the Northern Land Council to determine the royalties to be received by the Aborigines.

A major difficulty as far as the company is concerned is the delay in the NLC's land claims being heard by the Lands Commissioner.

Pancontinental is prepared to negotiate without waiting for the hearing, but the NLC will not agree, and maintains that until the claims are heard it has no status to negotiate.

The utilities which have been hoping to purchase Australian uranium cannot wait forever. Their prime requirement is to ensure that they have guaranteed supply.

While Australian uranium hopefuls are forced to mark time, new suppliers are entering the markets, notably from Canada. South Africa has also stepped up its uranium output, largely because of the recent heady gains in the price of gold.

All South African uranium is obtained as a by-product of gold mining.

The delay must be particularly galling for Pancontinental because the company had hoped to take advantage of the surge in gold prices.

It is known that Pancontinental's Jabiluka 2 deposit contains gold in an enriched zone, which the company planned to extract three to five years after starting production of uranium.

It is understood that the company is now checking to determine the extent of the gold mineralisation, including re-assaying of some old cores to concentrate on the gold values.

Whatever this work turns up it is believed that Pancontinental has already decided that it will now produce gold along with uranium as soon as mining starts at Jabiluka.

When that will be however is anybody's guess.

CSO: 5100

AUSTRALIA

PUBLIC URGED TO ACCEPT REALITIES OF NUCLEAR POWER

Canberra THE AUSTRALIAN in English 10 Mar 80 p 6

[Editorial: "Nuclear Realities Must Be Faced"]

[Text]

THREE stories published over the weekend illustrated Australia's opportunity, responsibility and vulnerability as a supplier of energy resources for the world.

●The Minister for National Development and Energy, Senator Carrick, told an American Chamber of Commerce seminar on energy resources that Australia had a huge energy-export potential and estimated that, within five years, our oil-equivalent energy exports would be greater than Iran's current oil exports. And, he said, our energy export figures would be even more impressive if there were a substantial increase in the market for uranium.

●Mr Gerard C. Gambis, vice-president of a New York firm of energy engineers, told the same seminar the world might not be able to survive the next 20 years without Australia's contribution to the inevitable switch from oil to coal and uranium.

●Yet financial editor Bryan Frith wrote in *The Weekend Australian*: "Uranium candidate Pancontinental Mining has lost potential supply contracts valued at about $250 million because of the company's inability to proceed with development of its huge Jabiluka deposit. And the lucky recipient is none other than South Africa, which is jumping in to fill the gap left by Australia's inertia."

The three factors mentioned in the first paragraph are all covered in those three stories: we have the opportunity to seize great and lucrative markets throughout the world; we have the responsibility not just to prosper for our own comfort and wellbeing but to play a major part in keeping the world functioning through the energy crisis which is beginning to grip the globe with awesome inexorability; and we are vulnerable, in that we are divided to the point of economic and socio-political distraction on the subject of uranium mining.

We cannot continue with our present pat-ball approach to uranium mining. Governments, political parties and society have got to come to grips with the problem and resolve it. And its resolution is not really so difficult:

it is a matter of accepting realities and eschewing emotionalism.

The reality is that nuclear power will be more and more used in the remaining 20 years of this century whether Australia mines its 20 per cent share of the world's readily-available deposits or not. South Africa's assumption of the order we dithered over is the latest proof of this.

The reality is that uranium mining is not going to increase the danger of the world's destruction by nuclear weapons: there are already more than enough such weapons in existence to blow several worlds into oblivion.

The reality is that nuclear power does produce dangerous wastes and does involve dangers in its generation – but the handling of those wastes and the containment of those dangers are at a level of risk which must be accepted if the development of the world is to continue. Indeed, it could be said "if maintenance of present standards" is to continue – and, heaven knows, those standards are not high when about two people in three do not have enough to eat. And they never will have, if energy supplies dwindle. They must increase, if the poorer countries are to have a chance to build better lives for their people.

The Federal Government is right in placing safeguards on the sale of Australian uranium. But it is not right when it puts domestic politicking before world needs and the national good and allows the clamor of the anti-uranium lobbies to delay approval for such companies as Pancontinental to write orders until the orders are no longer there to write.

This is not to say all those who are worried about the after-effects of uranium mining are wrong-headed or sinister in their campaigning. But it is to say they have allowed themselves to be manipulated by emotive arguments to the extent they are not looking reality in the face. We have to face reality – and we have to face it now. The energy crisis is not just something which is going to happen some time. It is happening. To quote Mr Gambis again: the world may not be able to survive the next 20 years without Australia's coal and uranium.

CSO: 5100

AUSTRALIA

FOREIGN PARTICIPATION IN RANGER PROJECT NOW IN DOUBT

Canberra THE AUSTRALIAN in English 7 Mar 80 p 14

[Report by Stephen Calder]

[Text] DOUBTS ARE growing over foreign interests' enthusiasm for the pending the Energy Resources of Australia float, the new company being formed to manage Australia's biggest uranium project.

The partners in the Ranger uranium project, Peko-Wallsend and EZI, have given Japanese, West German and British interests until March 21 to decide whether to take equity in ERA, which will develop the deposit.

It has been reported that negotiations with potential investors have been held up for a number of reasons, with the major stumbling block being that the foreigners want price concessions in return for equity.

There is some doubt in particular about the willingness of the British, represented by British Nuclear Fuel and two electricity utilities, to join in the ERA float.

While the details of equity participation in the project have still to be thrashed out, it has been suggested the British would take half the 25 per cent to be allocated to overseas interests.

The withdrawal of the British would therefore leave a big gap. Without foreign partners to help finance the development and ensure sales of Ranger production, the viability of the project would be jeopardised.

It seems the participation of the Germans, represented by Urangesellschaft and Interplan, is also under a cloud, with Urangesellschaft's attitude particularly uncertain.

Their withdrawal, should it be accompanied by a British refusal to participate, would throw the whole project back into the melting plot.

On the surface it would seem there would be no problem finding alternative foreign participants.

The French, for instance, are known to be keen about Australia as a supplier of uranium and are making a massive push into nuclear development which will see half their electricity output generated by atomic plants by 1985.

Two ERA executives, Mr Don Stewart and Mr George Mackay, are now in Europe holding talks with potential investors in Ranger.

Given the doubts about British and German participation, it is likely they will stop off in Paris to talk with officials from Electricite de France, the French Government-owned utility, and COGEMA, the State-owned nuclear generating company.

South Korea has also shown an interest and in fact has signed a contract to take 250 tonnes of Ranger uranium a year for 10 years beginning in 1983.

But the question must be posed: why would other potential foreign investors accept terms rejected as unsatisfactory by the British and Germans?

There are two major factors around which foreign entry into ERA revolves — uranium price and tonnages.

The Federal Government is known to be taking a hard line on the price foreign partners will pay for their shares of Ranger output. It appears to be insisting on a world parity price, now about $US40 a lb.

The Financial Australian was told yesterday that the French interests felt this price was too high given the present state of the world uranium market.

The French say it is unreasonable to expect partners to put up tens of millions of dollars towards development of a deposit like Ranger and then tell participants they can expect to gain no price advantage in return.

With development of nuclear plants suspended in both West Germany and the US, the currently depressed world uranium market is not likely to improve in the short term.

The spot price for uranium as published by NUEXCO has dropped from $US44 a lb to $US40 over the past two years and would have fallen even further if not for the huge development of nuclear power being undertaken by the French themselves.

A reasonable price for a long-term contract, the French say, would be in the vicinity of $US30.

Ranger's contract with South Korea, although it is understood to include escalation clauses, is thought to incorporate a price of about $US32 to $US36 a lb, which is lower than the $US40 being demanded from participants.

As far as tonnages are concerned, it is suggested that the Japanese might take 1000 tonnes a year of Ranger production, with the British and Germans taking similar amounts of the projected annual output of 3000 tonnes a year.

A pull-out by the British and Urangesellschaft would leave about 1000 tonnes of this unsold.

The French say that although their demand for uranium will be much greater, they would not be prepared to take more than 1000 tonnes of Ranger's production.

Even this would only be possible if an equity share was involved, which would ideally be at least 10 per cent, the French say.

By the mid-1980s, France will be using at least 8000 tonnes of yellowcake a year. But it wants to diversify its sources of supply, both internationally and within Australia.

A number of other uranium deposits are about to be developed and Australia's potential production of uranium will be between 10,000 and 20,000 tonnes a year by 1985.

The French would like to be involved, as buyers at least, with some of these other projects – hence the ceiling on the amount they could take from Ranger.

They also make the valid point that at $US30 a lb, the Ranger project would be extremely profitable.

With output at 3000 tonnes, or more than 6 million lbs, revenue from the mine would be of the order of $180 million a year. Operating costs are estimated at $US10 to $US15 a lb, giving an after-expenses income of over $90 million a year.

ERA, along with the Federal Government, may need to re-examine its pricing policy closely if foreign partcipation in Ranger is to be forthcoming.

CSO: 5100

AUSTRALIA

NEW BOOK OUTLINES HISTORY, IMPORTANCE OF URANIUM

Potentials Emphasized

Canberra THE WEEKEND AUSTRALIAN in English 8-9 Mar 80, Supp., p 16

[Book review by Wio Joustra of the book "The Deadly Element" by Lennard Bickel, Macmillan publishers]

[Text] (THE DEADLY ELEMENT by Lennard Bickel; Macmillan, $12.95)

AFTER the U.S. had incinerated Hiroshima and Nagasaki in 1945 to end World War II, Albert Einstein remarked: "There has been born the most revolutionary force since prehistoric man discovered fire."

He was referring to uranium, the source of peaceful and much needed nuclear power but also the trigger to atomic arsenals of incredible strike power.

Uranium is the "deadly element" in this new book by Lennard Bickel, a leading Australian writer and commentator on scientific affairs, who is well known for his previous book, *This Accursed Land*.

The Deadly Element is compelling and compulsive reading, if only because Australia has at least one fifth of the Western world's known uranium reserves.

Whether we like it or not, Australia's responsibility in the nuclear arena will only increase in the decades ahead.

The book is unique in that it tells the saga of uranium and its consequences for the first time for the layman, who still regards uranium as a mysterious, radioactive and potentially destructive mineral.

Bickel's book answers all those questions the layman has always wanted to know about uranium but was never game to ask.

The Deadly Element opens up the field of uranium, atoms, atomic bombs, nuclear power and weapons to the community, instead of restricting it to a small group of nuclear physicists.

The greatest compliment Bickel received was Sir Mark Oliphant's — at the launching in Canberra last week — that *The Deadly Element* had told him the full story about the discovery of uranium for the first time.

It was a chemist from East Berlin, Martin Heinrich Klaproth, who discovered yellowcake in 1789.

At the dinner table Klaproth told his wife, Christiane: "I have only just found it, but I'm sure it's a new element. It's nothing to do with zinc, iron or tungsten — or silver. Nothing like any substance I know. I think it's a strange kind of half-metal."

And addressing the Royal Prussian Academy of Science in Berlin on September 24, 1789, Klaproth told fellow-scientists: "The number of known metals has been increased by one to 18. This I have called a metalloid, a new element which I see as a strange kind of half-metal. It is not related to the zinc, iron or tungsten found in so-called pitchblende.

"For some reason however, I have found it associated with lead. Consequently, I suggest that past errors in naming should be eradicated — such as iron pitch ore, pritchblende or black tin ore. I have chosen a name. A few years ago we thrilled to hear of the discovery of the final planet by Sir William Herschel. He called this new member of our solar system Uranus. I propose to borrow from the honor of that great discovery and call this new element — uranium."

After the birth of the world's most controversial mineral, Bickel tells of the pioneer scientists in Europe and America who were caught in the obsession of exploring and exploiting the astonishing power of the uranium atom

Bickel goes on to describe the chance discovery in the Belgian Congo — now Zaire — of the uniquely rich mine which yielded the material used in the Manhattan project to destroy Hiroshima and Nagasaki.

The destruction of these two Japanese cities was the first time the world was confronted with the destructive powers of the atom bomb and its radioactive aftermath.

The Deadly Element mentions how prominent scientists expressed fears about the misuse of uranium in the early days and how Hitler came close to getting the weapon that could have made him master of the world.

Arguably, the most fascinating part of the book is the revelation that 2000 steel drums of the most potent yellowcake on earth sat unnoticed on a dockside on Staten Island, New York while U.S. politicians and administrators argued about its value for two years.

Bickel says America and Britain could have ended the war in 1943 with atomic attacks on Germany and Japanese cities and explains the U.S. already had the fission technology available to them in 1941 — from Oliphant — but the authorities had left it in the files because they were marked "top secret."

There are many more fascinating anecdotes and historical data in Bickel's book.

Bickel argues uranium has raised the prospect of self-destruction for mankind.

It is human manipulation in Bickel's view that makes uranium the key to colossal explosions and the primer to byproducts which now arouse universal dread.

It is human folly, he says, that has bred the psychosis which makes its name synonymous with our planet laid waste, so that it looms over the future like the mushroom cloud of its own disintegration.

At the same time, ironically, uranium offers energy sources thousands of times greater than the dwindling fossil fuels over which energy-hungry nations could come to conflict, if there were no nuclear alternative.

That situation has brought mankind face to face with the alternative of boundless power supply or nuclear devastation.

One finds it hard to argue with Bickel's thesis.

Scientist Assesses Book

Perth THE WEST AUSTRALIAN in English 27 Feb 80 p 33

[Text]

CANBERRA: Nations possessing nuclear reactors cannot be prevented from extracting plutonium to make nuclear weapons, says the Australian scientist and former Governor of South Australia, Sir Mark Oliphant.

"In the hands of the unscrupulous or the power-hungry and even in the hands of criminals inside a country these weapons could become the trigger of big-scale nuclear war, with all its consequences," he said.

Sir Mark was speaking at the launching of the book "The Deadly Element," by a leading Australian writer, Lennard Bickel, at the National Press Club in Canberra.

There was no secret of nuclear-weapon manufacture and every nation that had made and tested a weapon succeeded first time, Sir Mark said.

Treaties entered into by future customers of Australia's uranium—however solemnly pledged—or inspections would not mean anything.

Governments could

change rapidly, repudiating agreements made by predecessors.

It was natural for the Australian Government to want to profit from uranium sales but this was in question.

Sir Mark said: "Our uranium occurs in very isolated and inhospitable regions where the cost of labour and other expenditures will be great and where industrial troubles—notorious in Australia—could make delivery on time uncertain or even impossible.

"The Deadly Element" is Mr Bickel's latest book, which traces the creation of atomic energy from the beginning to its use in atomic war and nuclear power.

G50: 5100

AUSTRALIA

BRIEFS

RADIATION AT SYDNEY AIRPORT--The NSW Labor Council will hold an inquiry into the handling of radioactive material at Sydney Airport. The inquiry follows a complaint at last night's meeting of the council by the Assistant State Secretary of the Storemen and Packers' Union, Mr Don Green, that a damaged package of radioactive material was found yesterday afternoon in the Qantas cargo area. Mr Green said there had been complaints earlier by unionists about damaged packages of radioactive material at the airport. The packages contained medical radio isotopes in either solid or liquid form consigned overseas from the Lucas Heights atomic establishment. [Excerpts] [Sydney THE SYDNEY MORNING HERALD in English 7 Mar 80 p 13]

GERALDTON AREA RADIATION--Radiation from mineral sands in the Geraldton area did not pose a serious health threat the Minister for Health, Mr Young, said yesterday. Mr Young said no emergency measures were needed. In some areas of Geraldton the radiation level had been slightly higher than the standards laid down by the Radiological Council. The local authorities involved and the two mining companies, Allied Eneabba Pty Ltd and Jennings Industries (WA) Ltd, would submit joint plans for action to overcome the problem. The higher reading occurred mainly were tailings material had been used for filling. Mr Young said that all the affected areas in Geraldton had been identified following publicity late last year. [Excerpts] [Perth THE WEST AUSTRALIAN in English 11 Mar 80 p 16]

POSSIBLE BOMB TEST QUERY--The Returned Services League may soon approach the Federal Government to investigate the possible ill-effects of atomic bomb tests on ex-servicement. The request is contained in a motion passed last week by the RSL south-eastern Queensland district. If the motion is accepted at the RSL state conference in June, it would go to the national conference in September. The motion refers to ex-servicemen who may have been exposed to the effects of radiation while involved in the series of tests on the Monte Bello Islands off the north-west coast of Western Australia. The tests were conducted for Britain in 1952 and 1956. The motion also refers to ex-servicemen who may have been exposed to radio-activity while with the occupation forces in Japan. [Text] [Brisbane THE COURIER-MAIL in English 12 Mar 80 p 8]

YELLOWCAKE SECRETLY MOVED--Sydney.--A police escort moved a convoy of 15 trucks carrying yellowcake from the Australian Atomic Energy Commission at Lucas Heights to the White Bay container terminal in Sydney in a secret operation yesterday. [Text] [Brisbane THE COURIER-MAIL in English 14 Mar 80 p 25]

NUCLEAR WASTE--Canberra, 25 Mar--A program of radioactive waste management had been completed at the former atomic weapons test range at Maralinga, south Australia, the national development minister, Senator John Carrick, announced today. The range was the site of British nuclear weapons test explosions in 1956 and 1957. A series of other minor experiments involving nuclear materials was undertaken there between 1956 and 1963. Senator Carrick said the sites of all nuclear explosions and a number of minor test sites had been identified by concrete plinths. Areas where radiation levels remained above internationally recommended limits for continuous occupancy had been signposted with multi-lingual warning signs advising against permanent occupation. He said six sites were involved, each a few hundred meters in diameter. [Text] [Hong Kong AFP in English 0649 GMT 25 Mar 80 OW]

CSO: 5100

GANDHI VIEWS PAKISTANI, INDIAN NUCLEAR PLANS

Fears Allayed

BK270815 Delhi Domestic Service in English 0730 GMT 27 Mar 80 BK

[Text] The prime minister told the Rajya Sabha that various programs of the enrichment of uranium are going on in the country and there is no need to create a stir because of reports of Pakistan acquiring capability to produce weapons-grade uranium. Allaying the apprehensions of members, Mrs Gandhi said: General preparation to strengthen the defense of the country is a continuing process and, therefore, there is no reason to have a sense of insecurity.

Mr K.C. Pant, Congress-U, and Mr B.P. Maurya, independent, wanted to know whether the government has protested to those countries who are assisting Pakistan in its nuclear program. Mrs Gandhi said that she is aware of press reports in this regard, but they need not necessarily be true. However, the government has no definite information on this.

Nuclear Plant Leaks Minor

BK260942 Delhi Domestic Service in English 0830 GMT 26 Mar 80 BK

[Text] The prime minister has assured the Lok Sabha that the recent leaks in the Tarapore nuclear power plant were of a minor nature and have caused no radioactive contamination. No evacuation has taken place of the people living in the neighborhood and hospital checks have shown none of the workers had any adverse effects.

The prime minister was intervening during question time in the house. In reply to another supplementary, Mrs Gandhi pointed out that scientists had felt denigrated during the Janata rule. She said we are trying to rebuild the morale of our scientists.

Replying to several questions, the prime minister said power generation at Tarapore has been reduced because of irregular and delayed supply of enriched uranium from the United States. Replying to Mr A.K. Roy, independent, Mrs Gandhi said in 1976 the plant generated 3,000 million units of power. This came down to nearly 2,000 million units last year.

Answering a question by Mr Uttam Rao Patil, Congress-I, the prime minister said the government remains committed to its policy of utilising atomic energy for peaceful purposes which include peaceful nuclear experiments. In reply to the main question on the pipe leak by Mr Satish Aggarwal, Janata, Minister of State for Defense C.P.N. Singh said these leaks were discovered during the routine checkup when the reactor was shut down. Such leaks are common in other parts of the world and they pose no danger even if the plant is in operation. He said strict safety measures are being followed and there is no threat to the people of the area.

CSO: 5100

BRIEFS

SOUTH KANARA URANIUM--Mangalore, March 19--Extensive deposits of uranium had been noticed in the region between Karkala and Gangolli in South Kanara and the recent survey conducted by the Geological Survey of India had shown that uranium seams along this coast were of excellent grade. Detailed investigations were being conducted by the Central Government about the possibilities of exploitation of these deposits. This information was given by the Karnataka Finance Minister, Mr. Veerappa Moily, yesterday at Haleyangadi, 20 km from here, while inaugurating a Rs.40,000 building of Sri Vidya Vinayaka Yuvaka Mandala Haleyangadi.--FOC. [Text] [Madras THE HINDU in English 20 Mar 80 p 13]

'MISHAP' RADIOACTIVE WATER RELEASE--New Delhi, March 24 (AFP)--The Tarapore atomic power station near Bombay, West India, suffered a mishap recently and radioactive water gushed out from the pipeline, the ECONOMIC TIMES newspaper reported today. "The mishap occurred when the ice plug, which had been formed in order to transplant a section of the bypass loop, where cracks were discovered gave way," ECONOMIC TIMES said in a front-paged report. "The accident took place on March 14, presumably due to welding heat that resulted in melting of the ice plug... With the giving way of the ice plug, there was a sudden gush of radioactive water from the pipeline through the opening into the containment area of the reactor," the newspaper said. As a result of the accident, recommissioning of the plant will be delayed, the ECONOMIC TIMES said. [Text] [BK240617 Hong Kong AFP in English 0605 GMT 24 Mar 80 BK]

CSO: 5100

URANIUM DEPOSITS IN KALIMANTAN TO BE EXPLORED

Jakarta KOMPAS in Indonesian 15 Feb 80 p 5

[Article: "West Kalimantan Uranium Deposits Will Be Explored Further"]

[Text] BATAN [National Atomic Energy Agency] will make further borings this year to ascertain how much uranium is available in West Kalimantan. The borings will go down to a depth of 1,000 meters. Tunnels will also be made into the mountains. A survey made jointly with France indicated that uranium sediment is found in a 10 to 15 kilometer area, 4 kilometers wide.

Prof Dr A. Baiquni, BATAN acting director general, gave this information during an "opinion sharing"session with Parliament's Commission X on Thursday [14 February]. He noted that since uranium is considered to be a strategic mineral, it will play an important role in facing the coming energy crisis. Therefore, in the 1980s, BATAN will develop the technical capabilities [to mine uranium] along with the technology to process it.

Uranium was discovered in West Kalimantan through the cooperative survey conducted by Indonesia and France from 1969 to 1979. Differences of opinion arose on how to carry out cooperation for exploitation. France wanted a "production sharing" arrangement. Since no agreement could be reached on this point, France withdrew and BATAN carried on alone.

According to Baiquni, surveys of other areas such as Irian Jaya, West Sumatra, and so on have been postponed because of lack of funds. With more than 726 million rupiah available for this year, the search will be centered on known deposits in West Kalimantan while Japan stated it would be interested in working in West Sumatra.

Responding to a question on the Uranium RUU[draft bill], Baiquni said uranium must be viewed as a strategic material. Therefore, the implementation of any activities concerned with uranium must be handled by the state because uranium is the lifeblood of the nuclear industry.

For 1980/81 BATAN has a budget of 6.1 bill rupiah for general research compared with the 3.5 [billion rupiah] bugeted for the previous year. BATAN has has an available research manpower of only 831 persons and has trouble finding new talent. "Many college graduates are not attracted to becoming research analysts for BATAN because, among other reasons, salaries are low," he said.

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CSO: 4213

BRIEFS

NUCLEAR POWER PLANT ADVOCATED--By rational calculation, it is advisable that Indonesia should have one nuclear power plant by 1989, and the decision to construct it should be made this year or next year at the latest, according to Professor Baiquni, director general of the National Atomic Energy Agency (BATAN). At his press conference in Jakarta last Monday, Prof Baiquni expressed the opinion that the Indonesian public would not protest against construction of the plant, as long as its advantages and disadvantages could be pointed out to them. The BATAN director general said technical experts to manage the plant can be trained for readiness and its nuclear fuel can be imported. He added that the most appropriate fuel would be the heavy-water nuclear reactor type with natural nuclear material (not enriched). To fulfill electricity requirements in the future, it is necessary to find an economic way by owning a nuclear power plant with a 600-megawatt capacity, he continued. A feasibility study for the construction of a nuclear power plant was already made in 1978 on the basis of a cooperation agreement between BATAN and HIRA (of Italy). The result of this study will be submitted to the proper authorities who will decide whether or not to construct this nuclear power plant within the framework of the policy of fulfilling energy requirements as a whole. [Text] [Jakarta HARIAN UMUM AB in Indonesian 20 Feb 80 p 3] 9300

CSO: 5100

FAST-BREEDER REACTOR DEVELOPMENT TO BE POSTPONED

OW251235 Tokyo KYODO in English 1109 GMT 25 Mar 80 OW

[Text] Tokyo March 25 KYODO -- The Atomic Energy Commission of Japan Tuesday set back its development schedule for its fast-breeder reactor (FBR) and advanced thermal converter reactor (ATCR) for 10 years or longer. The revision of the two power reactor development policies, the first change of the kind in 12 years, had become necessary because of long research and development delays and mounting costs, the commission explained.

The two shared-cost, government-industry projects, earmarked by the government as of national importance, have been carried on for more than a decade chiefly by the governmental Power Reactor and Nuclear Fuel Development Corp.

The "FBR" is a kind of power reactor under development in many advanced countries, especially at a rapid pace in France, Britain and the Soviet Union, that fuels itself and produces fuel for other reactors at the same time. The ATCR is to fill the gap between the time-consuming FBR development and the existing light water-cooled power reactors.

According to the commission's announcement, the target date for development of a practicable type of FBR, originally set "sometime early in the decade beginning 1985" has been deferred until "sometime during the decade starting 1995." Similarly, the original target time concerning the ATCR has been delayed from "the first half of the decade commencing 1975" to "sometime during the decade beginning 1985."

The original plan was to try to share the cost of building an FBR prototype 50-50 between the government and industries. But, because costs have risen to an estimated yen 400 billion, the industries' share has been reduced to 20 per cent, or about yen 80 billion.

Electric power companies and related firms obtained the reduction late last year when the governmental corporation sought a yen 15.9 billion appropriation in the 1980 national budget to begin work on the prototype in 1981. The companies asked for a reduction in their share because the cost of an ATCR prototype that had attained criticality in 1978 was yen 68.5 billion, almost twice the original estimate of yen 30.8 billion.

The FBR prototype is known as "Monju" from the sanskrit name of "Manjusri" (for the Buddhist god of wisdom) and the ATCR prototype as "Fugen," a Japanese-language version of the similar sanskrit name of "Samantabbadra-Bodhisattva" (for the Buddhist god of teaching, meditation and practice of Buddhism).

CSO: 5100

BRIEFS

URANIUM RESEARCH PLANT--Miyazaki 15 Mar--Asahi Chemical Industry Co said Saturday that it will build a uranium 235 research plant at Hososhima in Hyuga, Miyazaki Prefecture. The new plant is to turn out enriched uranium by the chemical exchange process with ion exchange resin as the medium. Of the construction cost of yen 12 billion, the government plans to extend subsidies totaling yen 8 billion of which yen 873 million has been earmarked for this year. Asahi Chemical Industry plans to present the construction plan for the plant to the Ministry of International Trade and Industry shortly and explain the plan also to local circles concerned next month. The Uranium 235 will be enriched to 3 percent at the plant based on researches conducted at the firm's Kawasaki plant in Kanagawa Prefecture. The enriched uranium will be used for fuel at atomic power plants. [Tokyo KYODO in English 0224 GMT 15 Mar 80 OW]

CSO: 5100

CSSR NUCLEAR PROGRAM WITHIN CEMA FRAMEWORK DISCUSSED

Prague REVUE OBCHODU PRUMYSLU HOSPODARSTVI in Czech No 12, 1979 pp 8-9

[Text] Czechoslovakia's nuclear program is closely related to the program for the peaceful use of nuclear energy in the CEMA countries, a program which is being planned and coordinated by the CEMA Standing Committee for the Peaceful Use of Atomic Energy (atomic energy is the conventional term used in the title of the standing commission, but the proper, professional term is nuclear energy). The nuclear program deals with two basic sectors of the economy, i.e., the nuclear power generation industry and the nuclear engineering industry.

The goal of the nuclear power generation industry is to provide new sources of power for the socialist societies and, in a broader sense, for all mankind.

The goal of the nuclear engineering industry is to harness ionizing radiation in all sectors of the national economy, e.g., in industry, construction, agriculture, many different scientific disciplines, and in medicine.

Both of these aspects of the nuclear power program are so extensive in terms of the range of problems that need to be resolved and so challenging in terms of the demands that are being levied upon the scientific, research and industrial spheres that they can be developed only within the framework of wideranging international cooperation, primarily by way of socialist integration and the sharing of research, production and development program workloads.

The steady increase in the material and cultural needs of socialist society means that it will be necessary in the future as well for the Czechoslovak economy to continue to grow in a dynamic and proportional manner, and this in turn means that the Czechoslovak economy will have to provide for the further growth of industrial, agricultural and construction industry output and for the corresponding development of the transportation industry. This growth will be realized primarily owing to an increase in the productivity of labor, something which can be best accomplished by harnessing the results of scientific and technological progress. This also means that there is bound to be an increase in the consumption of primary energy sources. Our domestic conventional energy resources (bituminous coal and lignite, oil, natural gas and our hydrogenerating capacities) will not be able during the 1980s to sustain this growing consumption of primary energy resources, so it is essential that we should look for alternative energy resources. At the same time we must make use of all of the resources which are at our disposal and which are also economically feasible. We should promote the utilization of solar, geothermal and nuclear energy as new energy resources. Using existing technologies, solar and geothermal energy could be harnessed as a source of heat for the heating of water for municipal and residential utility purposes and as a supplementary resource for agriculture. The harnessing of these energy resources for the generation of electric power is still in the basic research stage.

This is why the only realistic source of a sufficient supply of the energy that is needed for the further economic growth of Czechoslovakia is nuclear power, which can meet the growing demand of consumers and which can be harnessed for the purpose of building nuclear powerplants.

The growth of the nuclear engineering industry within the larger framework of the nuclear power generating industry is also an urgent necessity for the other CEMA countries. In spite of existing large reserves of conventional power resources it is above all necessary for the European CEMA countries (including the western part of the Soviet Union) to build up 1990 an extensive system of nuclear powerplants equipped with VVER-class pressure water reactors. This standard reactor model, which was developed in the Soviet Union and tested during long years of operation at the Novyy Voronezh powerplant, has proved itself to be technologically advanced and economically advantageous, operationally dependable and safe.

Czechoslovakia will take part in the building of a nuclear power generating industry in the CEMA countries in those areas for which it possesses the material, technical and manpower prerequisites. These areas include: the mining and dressing of uranium ores into concentrated forms which are then shipped to the Soviet Union for further processing; the manufacture of selected components for the primary and secondary zones of powerplants equipped with VVER-440 reactors for our own use and for the use of certain other CEMA countries; the construction of nuclear powerplants equipped with VVER-440 reactors on Czechoslovak territory; the research and development of selected components for future generations of nuclear powerplants, especially those equipped with fast reactors which use uranium around 50 times more efficiently than light-water reactors (thus, by the turn of the century Czechoslovakia will be ready to work together with the other CEMA countries on building of this new generation of nuclear powerplants); the fixation, disposal and safe storage of radioactive wastes; the performance of research work on the dependability and safety of nuclear powerplants and their impact on the environment; the performance of state inspection services in connection with the manufacture of components and the construction and operation of nuclear powerplants, the physical protection of nuclear powerplants and the transportation of nuclear fuels; the training of skilled workers for employment in the aforementioned areas.

A leading role in the management and coordination of the nuclear power industry is being played by the Soviet Union which is making a vital contribution to the advancement of this industry both in terms of research and development and also in terms of supplying plant and equipment. The Soviet firm TEPLOENERGOPROJEKT is the general engineer for all nuclear powerplants equipped with VVER reactors in all of the CEMA countries. The Soviet Union is supplying all of the CEMA countries with the enriched uranium isotope U^{235}.

The coordination of the development of the production of components for nuclear powerplants and of other tasks in the nuclear power engineering industry is being taken care of by the international economic association of the CEMA countries, INTERATOMENERGO, which is also utilizing the services of Czechoslovak experts.

The countries involved have an important interest in seeing to it that nuclear powerplants provide not only for the generation of electric power, but also for the generation of thermal energy for industry and for the municipal-residential services sector (in the form of hot water and steam). The Czechoslovak firm ENERGOPROJEKT and the Soviet firm TEPLOENERGOPROJEKT are working together on the engineering design of a nuclear powerplant which incorporates a thermal energy recovery system. A decision giving the go ahead for the realization of a prototype design of such a system should be made sometime during 1980. Plans are also being made for Czechoslovak-Soviet cooperation in the design of nuclear-fired heating plants which would supply hot water exclusively for household use. These plants would be equipped with much simpler kinds of nuclear reactors with high dependability and safety rating so that it would also be feasible to contemplate their installation in the immediate vicinity of population centers.

Czechoslovakia's contribution to CEMA's nuclear power program with regard to the nuclear power generation industry can also be discussed in terms of its current and planned efforts dedicated to the production to components for nuclear powerplants equipped with VVER-440 reactors.

The sectoral enterprise Skoda of Plzen is responsible for the production of complete reactor assemblies, i.e., reactor pressure vessels, their built in working parts, reactor control and protection systems, and a whole host of auxiliary systems related to their installation and operation. The first reactor to come off this enterprise's production lines is scheduled to be shipped this year to the Paks powerplant in Hungary. For the secondary zones of nuclear powerplants Skoda is manufacturing turbines, turboalternators, steam separators and superheaters, condensers, heat recycling systems, and power-generating-unit transformers. Production work is being carried out at plants in Plzen and in Tlmace in cooperation with the VHJ Vitkovice and the VHJ Ferrous Metallurgy in Prague.

The VHJ Klement Gottwald Iron and Engineering Works of Vitkovice is in charge of the production of volume expansion joints. Plans are being made for the production of steam generators for which seamless-weld piping will be supplied by the Chomutov Piping and Iron Rolling Mills made from steel produced by the Kladno United Steelworks. Vitkovice is serving as the metallurgical base of the nuclear power engineering industry with regard to most of the large-scale components, e.g., collars and heads for reactors, forged pieces for piping and pipe hangers, and so on.

The VHJ Sigma of Olomouc is in charge of the production of piping and fittings for nuclear powerplants, including seamless-weld piping and main shutoff fittings with nominal diameters of 500 mm. It is also producing pumps for the primary, secondary and auxiliary zones of nuclear powerplants (except for the main circulation pumps which are being supplied by the Soviet Union). All of these products are already being delivered to power plants in the CSSR and in the other CEMA countries.

The VHJ CHEPOS of Brno, through the efforts of its Kralovopolska Engineering Works and CHEMONT plants, is taking care of the production and installation of gantry cranes and seamless-weld tanks, apparatuses and piping for the auxiliary zones of powerplant primary areas. This equipment is being delivered to powerplants built in Czechoslovakia.

An important role in the supply of measurement, control and automation equipment is to be played in the future by the VHJ Automation and Computer Technology Plants of Prague and by the Tesla enterprise of Prague. On the basis of plans for the division of labor among the CEMA countries Czechoslovakia is supposed to assume responsibility for the production of a large proportion of this equipment.

The general directions in which efforts aimed at the harnessing of ionizing radiation in the nuclear engineering field are headed can be summarized as follows.

--The production of radionuclides and labelled compounds; the CEMA countries have concluded a specialized agreement for the production of these materials according to which Czechoslovakia is responsible for the research, development and production of a specified assortment of isotopes for its own use and for export. The main focal point of this production work is presumed to lie in the area of radiopharmaceuticals and radioimmunoassays designed to be used for diagnostic and therapeutic purposes in human and veterinary medicine. These materials are to be produced by institutes under the control of the Czechoslovak Atomic Energy Commission, i.e., the Institute for the Research, Production and Utilization of Radioisotopes in Prague, the Institute for Nuclear Research in Rez, and the Institute for Radioecology and Applied Nuclear Science in Kosice.

--The production of betatrons; this production work is being carried out by the Czechoslovak Uranium Industry at its plant in Ostrov n. Ohri. This plant is producing defectoscopic betatron devices for the analysis of materials and medical betatron devices for the radiologic treatment of malignant tumors.

--The production of radiologic devices; this production work is being carried out by the VHJ Chirana in St. Tura. The radiologic devices that are being produced are based on the use of radioactive cesium or cobalt for the treatment or malignant tumors. These devices are eventually supposed to be supplied to all of Czechoslovakia's cancer treatment centers.

--The production of simulators; simulators are being developed by the VHJ CHIRANA of St. Tura with a view to producing these devices to meet the needs of the CSSR and the USSR under the terms of a proposed division of labor in this area for the next 5-year plan. Simulators equipped with X-ray tubes measurement and computing apparatuses are a new and vital piece of equipment used by cancer treatment centers. They make it possible to determine the exact location of malignant tumors and the radiation treatment measures that are needed.

--The production of instruments for the detection and measurement of ionizing radiation; the series production of these instruments is the responsibility of the Tesla VHJ. Made-to-order and small-series instruments in this category (including in particular instruments used for medical, biological and radioecological purposes) are being produced by the new plant in Spisska Nova Ves.

--Radiation sterilization; a unique irradiation stateion has been built in Czechoslovakia at the Textiles Research Institute in Veverska Bityska near Brno. Intense gamma radiation sources are used at this facility to sterilize medical materials and instruments. Additional irradiation capacities exist in the institutes of the Czechoslovak Atomic Energy Commission in Rez and Prague which are also engaged in research work in this promising field.

--Radiation technology; ionizing radiation can be harnessed in a number of fields to bring about desirable changes in fabricating materials and in living matter as well. At the present time consideration is being given to the use of ionizing radiation as a means of improving the mechanical and insulating properties of cables, and the potential benefits of utilizing radiant energy are also being studied in connection with the search for new kinds of seed material. An examination of the main thrusts of Czechoslovakia's nuclear power program reveals that the peaceful use of nuclear energy is producing benefits for our entire society, contributing to further scientific progress, curing illnesses, improving the quality of the environment, boosting the quality of manufactured goods, and so on. And in the immediate future cooperation among the CEMA countries in the nuclear power area will also insure an ample supply of power generating sources for the further economic growth and increased living standards of all the countries that make up the socialist community.

11813
CSO: 5100

ARGENTINA, BRAZIL EXPLORE NUCLEAR COOPERATION

PY240008 Buenos Aires NOTICIAS ARGENTINAS in Spanish 1241 GMT 22 Mar 80 PY

[Text] Buenos Aires, 22 Mar (NA)--Argentina and Brazil have not reached "any agreement" in the nuclear field, but "they have drawn up possible patterns of cooperation between the two nations," according to two Brazilian atomic energy officials after a 1-week visit to this country.

This was reported yesterday by Paulo Nogueira Batista, president of the Brazilian Nuclear Corporation [NUCLEBRAS], and Hervasio de Carvalho, president of the Brazilian Atomic Energy Commission, during a press conference they gave at the headquarters of the National Atomic Energy Commission [CNEA].

The two Brazilian officials were invited here by CNEA to visit its installations to examine the possibility of cooperation agreements between the two nations, which would be signed by Presidents Jorge Videla and Joao Baptista Figueiredo when the latter comes here by official invitation in the middle of May. According to the explanation given during the press conference, on this occasion there was only "an attempt to identify areas of mutual interest between the two countries" which include "the complementary manufacturing of components, basic research, nuclear security, personnel training and the exploitation and production of uranium."

Nogueira Batista explained that the technologies used by the two countries are different--Brazil uses enriched uranium and Argentina uses natural uranium--but that "joint work will be highly advantageous."

He added that "after identifying common areas it is possible to think of the possibility of integration between Argentina and Brazil in the supply of components."

CSO: 5100

BRIEFS

BRAZIL-ARGENTINA NUCLEAR ACCORD--Brazil and Argentina are bound to sign a nuclear agreement because both countries have interests in this sector and there is no reason to prevent nuclear cooperation when relations between the two nations are as cordial as ever. This statement was made by Foreign Minister Saraiva Guerreiro, who denied the existence of pressures in Brazil from military sectors which would be opposed to this nuclear agreement. [Text] [PY221420 Sao Paulo Radio Bandeirantes Network in Portuguese 1000 GMT 22 Mar 80 PY]

CSO: 5100

EXPERT SAYS COUNTRY CAN BUILD ATOMIC BOMB IN 10 YEARS

Military Objectives Charged

PY271723 Paris AFP in Spanish 1528 GMT 27 Mar 80 PY

[Text] Brasilia, 27 Mar (AFP)--Brazilian nuclear physicist Antonio Didier Barbosa Vianna charged here today that the FRG-Brazilian nuclear agreement has military objectives and that in 10 years Brazil will be able to manufacture its own atomic bomb.

The Brazilian scientist revealed this to the investigative committee of the National Congress, which is currently examining the nuclear agreement between Brazil and the FRG signed in 1975.

Army Chief Stresses Peaceful Use

PY280031 Porto Alegre Radio Guaiba in Portuguese 2150 GMT 26 Mar 80 PY

[Text] Brasilia--After making it clear that he will not discuss nuclear issues during his trip to the FRG in June, Gen Jose Ferraz da Rocha, chief of staff of the armed forces, stated that any country that has acquired nuclear technology could use it for military purposes. He reiterated, however, that Brazil seeks to acquire nuclear technology only to promote the country's development and not for military purposes.

CSO: 5100

NIGER

BRIEFS

PRESIDENT ON NUCLEAR ENERGY, URANIUM--The Niger Government gives priority to utilization of natural energy resources and does not propose, for technical reasons, to resort to nuclear energy, President Seyni Kountche has declared. "Since the military took over power in 1974, Niger controls the ownership as well as mining and sale of uranium. It has proceeded to diversification of mining companies and now counts even African members at the level of uranium mining." [Text] [Paris AFRIQUE DEFENSE in French Feb 80 pp 12-13] 5586

CSO: 5100

ENERGY OFFICIAL INTERVIEWED ON NUCLEAR ENERGY

LD261401 Oslo AFTENPOSTEN in Norwegian 20 Mar 80 p 8 LD

[Interview with Russian energy official by Kjell Dragnes: "Soviet Union Stakes Much on Nuclear Power"]

[Text] Moscow, 19 March--"It is of course impossible to say that a Harrisburg-type accident will not happen here. But we are convinced that modern technology makes it possible to build nuclear power stations that are completely safe."

This statement was made by Fedor Ovchinnikov, Soviet deputy minister for power and electrification, in an interview with AFTENPOSTEN. Ovchinnikov is one of the thirteen deputy ministers at the Ministry of Power and Electrification and has the development of nuclear power as his special field. Before he was appointed deputy minister of power and electrification he was director of the nuclear power station in Novovoronezh for 15 years.

"In those 15 years we did not have one single instance of dangerous radiation. And I have no knowledge that it has happened at other nuclear power stations either," Ovchinnikov says.

Safety questions were the main topic in the interview. It was clear from Ovchinnikov's answers that the Harrisburg accident has been studied in the greatest detail by Soviet nuclear experts. There are both similarities and differences between the American and Soviet power stations.

"At the Harrisburg power station they have two safety systems to hinder the melting of the core. We have three. It has also been established that it was human error which led to the accident. Something like that would not be able to happen here."

"We must remember that it is people who control the technology. We give our nuclear technicians total training. They understand how the whole power station works, not just a part of it. We also have different safety and emergency routines from those of the Americans," Ovchinnikov says.

The Soviet nuclear development program has in no way been altered since Harrisburg. The main outline is clear--vigorous investment in nuclear power stations in the European sector which has 75 percent of the population but only 25 percent of energy resources. In 1980 the goal is an installed capacity of 13 million kilowatts (13.000 megawatts), a goal, whose achievement is doubtful.

In the next 5-year plan, which begins next year, the goal is for an installed capacity of from 20,000 to 25,000 megawatts. It will be achieved primarily by building reactors with a capacity of 1 million kilowatts. Such "millionaries", as the Russians call them, already exist in Novovoronezh and at the Leningrad power station, which achieved a capacity of 3,000 megawatts a month ago. The nuclear share in electricity generation will increase from 5 percent this year to 20-25 percent in the course of the next decade.

Up to the end of the century the normal type of reactor will carry the main burden, but at the same time there is a research program embracing fast breeder reactors.

[Question] Is nuclear power a blind alley in the development of energy sources? "No", Ovchinnikov says with conviction. He points to the debate in Sweden. Many people are against nuclear power, but at the same time they are not against other advantages of our civilization, such as aviation. "Energy is needed to heat our homes. Where will we take it from? I do not put much faith in all this talk about wind and sun," Deputy Minister Ovchinnikov says.

But is there really no one who is an opponent of nuclear power in the Soviet Union? "Well, yes, there have been both verbal and written discussions. When the power station in Novovoronezh was built there were many people who expressed anxiety. But we sent round agitation brigades which persuaded people that there was no danger," he says.

The pros and cons of nuclear power are seldom discussed openly in the Soviet Union.

CSO: 5100

DENMARK

JORGENSEN: THEORETICAL RISK ON NUCLEAR ENERGY VITAL IN POLICY

Copenhagen BERLINGSKE TIDENDE in Danish 30 Jan 80 p 5

[Article: "Theory Counts for More Than Facts in the Choice of Coal Rather Than Nuclear Power"]

[Text] The coal consumption in the electric power stations will be increased. Lack of knowledge about the consequences of pollution from coal is no reason for dropping it. The government places greater weight on the theoretical risk in nuclear power than on the actual damage effects from the increased consumption of coal which postponement of nuclear power will result in.

Prime Minister Anker Jorgensen did not hesitate when he reported on this after the meeting of ministers. When somebody remarked that the government thus puts more emphasis on a conceivable danger of radioactivity from the nuclear power station than on the actual daily discharge of heavy metals and radioactivity from coal firing, he answered as follows:

Postponed, Regardless of Whether or Not It Is Unbiased

"We are not saying that this pollution is not important. But what, in the worst case, can occur in a nuclear power station is more difficult to understand, and we cannot manage to clarify that as quickly as expected. We therefore postpone the decision and concentrate on all other forms of energy. Whether there are factual reasons for it or not, there is an uncertainty in the population which we must take into consideration." The prime minister also said that the government has not changed the attitude that nuclear power should be part of Denmark's energy supply if the safety requirements can be met. He rejected the indications about energy-saving measures, e. g., in the form of new taxes, which Member of Parliament Birthe Weiss, a member of the same party, has aired.

About a Danish-Norwegian natural gas cooperation the prime minister said that he had discussed the idea "in general" with Norway's Prime Minister Odvar Nordli. He hoped for a meeting soon about the case, but he anticipated a series of problems. For one thing, it is not known whether Sweden and West Germany will participate, which is a condition.

A political assault against the government due to the nuclear power decision is already on the way. The Conservative Party and the Liberal Party have demanded an inquiry debate. The Liberal Party has demanded consultation in the energy committee with both the prime minister and the minister of energy.

The Democratic Center Party has reported that they support any initiative in favor of nuclear power. The Christian People's Party denies that the party would support the government's decision. On the contrary.

"Deceives the Population"

The inquiry, which may give rise to a vote of no confidence in the government in the country's most important real policy case, runs as follows: "What will the government do to obtain adequate and reliable energy supplies for Denmark after the government's decision about postponing the use of nuclear power indefinitely and in accordance with the information that there is nothing concrete about a Danish-Norwegian cooperation on the North Sea gas."

Annelise Gotfredsen (K [expansion unknown]), who becomes chairman, refers to the government decision as "headless" and "unfortunate." "The government is bungling Danish energy policy completely through its indulgence with the energy dreamers and the Social Democratic left wing. But in parliament the government must now give a clear answer to how it intends to cover Denmark's energy requirements after it has eliminated important supply possibilities," she adds.

Former Minister of Energy Arne Christiansen (Liberal Party) says straight out that "the government confuses the population" when it reports on Norwegian natural gas and coal investments in the world. He uses numbers to document that Denmark is covered with natural gas. About a possible coal mine investment he says that the idea has been "aired" and must be characterized as "false reassurance for the population."

8958
CSO: 5100

POLL SHOWS MAJORITY AGAINST NUCLEAR POWER HOLDS STEADY

Copenhagen BERLINGSKE TIDENDE in Danish 10 Feb 80 p 7

[Article by Asger Schultz, Director of the Gallup Institute: "Continued Majority against Nuclear Power; The Result of a National Referendum Will Be Decided by an 'Election Campaign'"]

[Text] People's immediate attitude to the introduction of nuclear power in Denmark is still predominantly against it. This is clear from the latest investigation which the Gallup Institute has carried out in the series of current investigations which the institute is carrying out to determine people's attitude to nuclear power in Denmark.

In these investigations a representative section of the adult population is given the question:

"Parliament has postponed the decision to build nuclear power stations in Denmark until a sufficiently reliable way for storing nuclear waste has been found. If or when parliament at some time believes that this problem has been solved and decides to build nuclear power stations, this question may possibly be the subject of a national referendum. If there is a national referendum, would you vote yes or no to nuclear power?"

The results of the latest poll, which was carried out in January 1980, can be seen in the following summary compared with the earlier polls.

	Dec 1978 %	April 1979 %	June 1979 %	Sept 1979 %	Jan 1980 %
Will vote for nuclear power	39	30	32	36	37
Will vote against nuclear power	38	54	51	46	44
Don't know	23	16	17	18	19
Total	100	100	100	100	100

As can be seen, the accident on the Three Mile Island affected people's attitude almost like a shock. However, it can also be seen that this shock is about to fade away.

The support for nuclear power has almost reached the level before the accident, while the opposition does not die out as easily. However, there is still a trend towards the level before the accident when supporters and opponents had come to a standoff.

However, if the development were to follow the pattern illustrated in the survey, there would again be a balance between supporters and opponents around the middle of 1980.

The figures cannot be considered to be an actual forecast for a possible future national referendum. People's attitude to the nuclear power question is comparatively unstable, and an "election campaign" before a possible national referendum would therefore be of crucial importance, together with incidents, as for instance, those in Pennsylvania.

Earlier polls which the Gallup Institute has carried out thus showed that if people get the impression that the waste problem has been solved in a convincing way, a clear absolute majority of the population would favor nuclear power.

In the following table the answers to the question have been broken down into three groups according to whether the subjects belonged to the Social Democratic Party or to parties to the left or to the right of this party.

	Will Vote Yes %	Will Vote No %	Don't Know %	Total %
Total	37	44	19	100
To the right of the Social Democratic Party	49	32	19	100
The Social Democratic Party	38	42	20	100
To the left of the Social Democratic Party	13	79	8	100

It is seen that it is the leftist parties which constitute the real opposition to nuclear power, while among the Social Democratic voters there is only a slight relative majority against nuclear power. Among the nonsocialist voters, one-half (49 percent) is for nuclear power and one-third (32 percent) is against.

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8958
CSO: 5100

FOLKETING GIVES TACIT BACKING TO GOVERNMENT NUCLEAR POWER POLICY

Copenhagen BERLINGSKE TIDENDE in Danish 14 Feb 80 p 8

[Article: "Parliament Agrees to Postpone the Decision in the Nuclear Power Debate"]

[Text] The government's decision about postponing the decision concerning Danish use of nuclear power indefinitely was approved yesterday by a majority in parliament, and thus it seems certain that Denmark will not get any nuclear power stations in this millenium--if it will ever happen at all.

Parliament's approval of the government's energy policy was indirect when they with 110 votes (S, Frp, SF, R, VS, and Rfb) against 41 (V, K, and CD) rejected a proposal for an order of the day from the Liberal Party, the Conservative Party and the Democratic Center Party, who wanted to state that nuclear power is a necessary part of the country's future energy supply and to encourage the government to maintain the former multiple energy policy and the deadlines anticipated in this policy for a decision about nuclear power in Denmark. The Christian People's Party abstained from voting. A proposal for an order of the day from the Progress Party, which referred to the postponement of the nuclear power decision as unacceptable and demanded a national referendum on nuclear power within a year was rejected by the other parties.

There is no significant change in the government's energy policy. It still includes all the same elements as previously. Both Prime Minister Anker Jorgensen and Ministry of Energy Poul Nielson established this in their replies to questions from the Liberal Party and the Conservative Party.

The main points in the government's energy policy are as follows:

The government's idea that, for one thing, the consideration for the safety of the supply clearly indicates that nuclear power should be included in the multiple energy supply is unchanged. The investigations regarding storage and reactor safety cannot be carried out by the time which had been aimed for. On this background, a postponement would become of interest, and this necessarily means that this must be considered in the planning.

The actual consequence is that from the start of the 1990's conventional coal-fired power stations have to be built instead of a nuclear power station every other year.

The rest of the energy policy is also unchanged in practice. Savings will continue to be emphasized and the natural gas project and power heat development will be carried out to reduce dependence upon imported oil as much as possible. The government wants to contribute to make the oil import as inexpensive as possible.

The government will try to create a background for increased prospecting and development of oil and natural gas on the Danish continental shelf area. The possibilities for a Nordic energy collaboration will be exploited in order to contribute to our supply security. The energy research will be expanded.

It was the energy minister's impression that--in spite of the background for the present debate--there was a quite broad understanding and acceptance for the main lines in this policy both among the population and in parliament.

Annelise Gotfredsen (F), who was spokesman for the petitioners, found that further postponement of the use of nuclear power would have to be considered as a serious sin of omission, which our children and children's children would have to suffer for. With regards to an increased coal consumption one would have--disregarding the pollution danger--to fear that increasing prices on coal would make the country's economic situation even more difficult. It was possible that some people saw an advantage in a zero-growth society, but there was no indication that people wanted such a reduction in the standard of living.

Arne Christiansen (the Liberal Party) did not believe that storage of the radioactive waste was a problem which might be a real reason for postponing the decision about using nuclear power. The reactor safety could not be a problem either. Throughout the 20 years during which nuclear power stations have been operated no human being has been killed or seriously hurt. But in West Germany alone 15,000 people have been killed in coal mine accidents since World War II.

Ole Maisted (FRP) felt unsure about the prime minister. There was a risk that some day Anker Jorgensen would also reject the use of coal power stations because there was a danger of pollution.

Ole Kalnaes (SF) rejected the use of nuclear power but demanded more appropriations for developing existing forms of energy and for energy research.

Lone Dybkjaer (R) agreed with the government that the conditions for the use of nuclear power were not met today, but in contrast to the government she believed that nuclear power stations would be used in Denmark on the basis of the conditions which are known today.

Birgith Mogensen (Democratic Center Party) said that even though the prime minister had got cold feet with regards to nuclear power, there was no reason for everybody else to also have cold feet.

Mikael Waldorff (Leftists Socialist Party) believed that the government had realized that nuclear power is both dangerous and costly, and this was fortunate. But except for that the government had no coherent energy policy.

Jens Steffensen (KRF) did not believe that the conditions for using nuclear power were met today, but he was positive to a multiple energy policy.

Alfred Hansen (Single-Tax Party) was satisfied with the government's present attitude per se, but was not sure that the government had found its own legs.

8958
CSO: 5100

ANTINUCLEAR POWER GROUP STARTS NEW PROPAGANDA EFFORT

Copenhagen INFORMATION in Danish 3 Mar 80 p 3

[Text] This month, thousands of activists, distributed on 125 local groups throughout the country, will be starting the fifth round of the hitherto most comprehensive popular information campaign, based on door-to-door visits. It is the Organization for Information on Nuclear Power, OOA, which thus has reached the last round but one of its most ambitious project: a pamphlet distributed to all households in the country.

Many people did not expect the project to suceed when the Organization for Information on Nuclear Power decided to print its four-color 'popular pamphlet' in millions of copies and distribute it to all households in the country through volunteers. So far, thousands of people have shamed this skepticism, and, as far as the financing of the project for 2 million kroner is concerned, the Organization for Information on Nuclear Power is here halfway through as well.

"We have managed to collect nearly 1 million kroner," says Lena Warrer of the Organization for Information on Nuclear Power. "That means that we still lack well over 1 million kroner, which we hope to be able to collect since the money will be needed to finance the further distribution of the popular pamphlet."

Local Arrangements

She adds that the distribution of the popular pamphlet, in many places, is followed up by local energy meetings. It has turned out that such meetings gather particularly many people in the rural districts, where the Organization for Information on Nuclear Power previously has not had the best contact with people. The explanation seems to be that people in many rural areas today have a practical knowledge of the utilization of the permanent sources of energy, to which the Organization for Information on Nuclear Power points in the pamphlet on Denmark without nuclear power.

The extensive campaign to spread information on nuclear power has, moreover, resulted in a flood of approaches to the Organization for Information on Nuclear Power, including other support of the work to spread the information.

"However, we have still left two out of a total of six distribution rounds,' says Lena Warrer. "They will be carried through in March and April, but it takes time, and it will also become more costly since it is a question of some of the sparsely populated parts of the country, and, in a few places, we have had to send the pamphlet through the ordinary mail. That means an additional expense, and we, therefore, hope that our hopes to collect the last 1 million kroner will not be dashed.

The Organization for Information on Nuclear Power's collection takes place via Postal Check Account No 1 35 35 35.

7262
CSO: 5100

DENMARK, GREENLANDERS TO DECIDE ON GREENLAND URANIUM MINING

Copenhagen INFORMATION in Danish 1 Feb 80 p 9

[Article: "Battle in the New Greenland Leadership About Uranium Mining"]

[Text] The exploration of the uranium deposit in Kvanefjeld in southern Greenland continues as planned. A request from Lars Emil Johansen, the chairman of the Siumut Party, about stopping the explorations is contrary to the home rule law.

With a negative presentation to Siumut's main administration in the uranium question, the chairman brings an internal battle in the party up to the surface. The actual leader of the party, national chairman Jonathan Motzfeld, has in statements and as chairman of the Danish-Greenland raw material committee agreed that the exploration will continue. He has previously told BERLINGSKE that he is in favor of mining the uranium as a contribution to solving Denmark's energy problems.

The Veto Right Cannot Be Used

In the presentation to the main administration, Lars Emil Johansen proposes, according to Greenland Radio, that the party should generally reject uranium mining on Greenland. He would also like to have an evaluation about whether it is of any use to continue the exploration.

According to the home rule law, no Greenland authority can stop the initial exploration. The law does say that "preliminary explorations, investigation and utilization of the mentioned resources will take place in accordance with agreements between the government and the national administration." But the law adds that "before an agreement can be made, a member of the national administration may demand that the case be presented to Landstinget, which can decide that the national administration should not be involved in making an agreement with the content referred to." The regulation, which is referred to as "double veto right" because it can be used even if the Greenland members in the raw material committee are in favor of an agreement, cannot be applied in the uranium case.

The uranium explorations started long before home rule was introduced. It is therefore not possible to lay down a veto "before" the agreement is made. In addition, Lars Emil Johansen has for one thing with his signature on the home rule committee's evaluation and as then member of parliament approved a continuation of the explorations.

The Greenland opposition to uranium mining is noted expecially in the left wing of Siumut. The moderate wing and the Atassut Party, which include almost half of the voters, are positive on the assumption that environmental considerations be made.

8958
CSO: 5100

DENMARK

GREENLAND SIUMUT PARTY LEADERS ARGUE URANIUM MINING ISSUE

Copenhagen BERLINGSKE TIDENDE in Danish 9 Feb 80 p 5

[Article by Thorkil Green Nielsen: "Will the Slogan Be: Danish Uranium in Danish Reactors!"]

[Text] After 1982 the Danish Government and the Greenland national administration will decide whether the 43,000 tons of uranium in Kvane Mountain in southern Greenland will be mined. Greenland's member of the EC parliament, Finn Lynge, is worried that the question may be decided by two factors which the Greenlanders only have a slight influence over: a Danish referendum on nuclear power and the government we will have after 1982.

This summer one of the Royal Greenland trade ships enters Koge harbor with 5,000 tons of uranium ore in its cargo. On the pier there are a number of trucks which will transport the ore the last 30 kilometers to Risoe experimental installation north of Roskilde.

The ore will be used for experiments, which will show no later than in 1982 whether it is profitable to mine the uranium in the Kvane Mountain in southern Greenland. The Ministry of Trade has appropriated 36.3 million kroner for the experiment--the largest amount the government has contributed to a single energy experiment in recent years.

And recently parliament's finance committee accepted a framework appropriation of 100 million kroner for energy research in 1980. Four of the 100 million kroner will according to the plan be used for the Risoe project.

The explanation for the large contributions can be read in the Trade Ministry's energy political report from last year: "The known and estimated uranium resources in the Kvane Mountain area will, if exploited, be able to cover the Danish requirement for uranium far into next century."

The leader of Risoe's exploitation experiments, engineer Jorgen Jensen, says it more directly:

"It is most probable that the uranium will be mined over 20 years, but it depends upon what it will be used for. Should the slogan be: Danish uranium in Danish reactors!"

An Unfortunate Situation

Finn Lynge is the Siumut Party's and Greenland's sole member of the EC parliament. He is worried that the Danish wishes about getting part of the riches in the Kvane Mountain will be too big for the Greenland politicians. They are dependent upon appropriations of more than 1.2 billion kroner annually from the Danish Government.

"I cannot imagine that a Social Democratic government would threaten to reduce the contributions to Greenland if we say no to the uranium mining.

"It will be something else if we get a nonsocialist quartet government. But not from a Social Democratic government. That would be grotesque. Of course, they helped give us the veto right.

"Our biggest problem is the referendum on nuclear power in Denmark. We hope that the Danes will say no, because if they say yes, the next step will be that the entire Danish population will put pressure on the home administration--a pressure to get permission to mine the uranium. Many Danes will consider us as very ungrateful if we say no to the mining. This can end up in a very unfortunate situation," says Finn Lynge.

"We Can Export Uranium"

Danish geologists estimate that there are at least 43 thousand tons of uranium in the Kvane Mountain. That is sufficient to supply 11 moderate-size nuclear power stations with fuel for approximately 30 years. And it is more than adequate to keep going the five nuclear power stations which the government's energy plan from 1976 is based on.

"I imagine that there will be uranium left over so that we can also export, e. g., to those countries which are members of the International Energy Agency," says Svend Karlskov Jensen, who until the parliamentary election in September 1979 was the Liberal Party's energy-political spokesman and member of the Joint Council on Mineral Raw Materials on Greenland.

"The uranium prices will most probably continue to rise in coming years due to the sky-high price on oil. Export of uranium will thus give us the necessary foreign currency.

"The mining will require large investments, but the Danish industries have good possibilities for developing in the Kvane Mountain although we also will have to get foreign mine experts as allies," says Svend Karlskov Jensen.

275 Foreigners

For the time being it is the geologists from Greenland's Geological Investigations, GGU, who have most fun with the Kvane Mountain project. Since

1955 when the first drilling machines dug into the mountain, the government has spent more than 10 million kroner on geological investigations of the uranium deposits.

If the mining is started, there will be work for several hundred engineers, electricians, bricklayers, environmental biologists and unskilled workers. They must build roads, schools, houses, a water power station which can deliver current to the mine, a chemical factory for extracting the uranium and a harbor to ship it from.

In the report "Uranium Extraction at Narssaq" the consultant company Hoff & Overgaard estimates that it will require 850 people to operate the mine, the factory and the water power station. At least 275 will be from the outside--this means Danes and other foreigners.

Hoff & Overgaard estimate that the extraction will earn 25 percent annually if two conditions are met: the price for natural uranium must increase to 835 kroner per kilogram and Risoe must develop a method to extract at least 85 percent of the uranium from the ore.

"It Is Only Necessary to Blast a Hole"

"Our preliminary tests indicate that it is quite feasible," says Jorgen Jensen, Risoe. He reports that the price of natural uranium today is approximately 600 kroner per kilogram. The uranium prices increased rapidly after the oil crisis in 1973, but in the last couple of years the increase has been more moderate.

The money which the government earns on the mining of raw materials on Greenland will be used to reduce the support to the home administration. This is what it says in the law on mineral raw materials on Greenland.

The greater the surplus the mine produces, the less it will cost for the Danish taxpayers. But who will benefit from the surplus which does not go for taxes and duties? Who will mine the uranium?

"A mining company will probably be formed, which the government may get some shares in," explains Soren Langvad. He is director in E. Pihl og Son A/S--the company which is mining ore for Risoe's mining experiment.

"The mine operation itself is not complicated. It is only necessary to blast a hole in the mountain, and many Danish companies have experience with this, for instance, the cement factories, which make large limestone quarries, or the companies which break rock on Bornholm.

"The big problem will be to find a company which can operate the chemical extraction factory. Only the companies which Risoe has received help from can manage those processes so far," says Soren Langvad. Risoe has, for one thing, received assistance from the West German company Lurgi.

Wants to See a Report on the Social Effects

"We cannot take a position on the uranium mining just on the basis of Risoe's investigations. I want to see a report on the social effects and on what will take place with the waste from the mine before I take a position," says Soren B. Jorgensen (Social Democrat). He is vice chairman of the Joint Council on Mineral Raw Materials on Greenland, the council which in a couple of years must present a recommendation to the government and the national administration on the future of the Kvane Mountain.

The council has 10 members--5 Danes and 5 Greenlanders. For the moment it consists of two Social Democrats, two Liberals, three members of Siumut, two from Atassut and a representation from the Federation of Trade Unions.

"If the veto problem arises, we must try to discuss and reach an agreement so we can make a joint recommendation to the government and the national administration," says Soren B. Jorgensen.

"Wouldn't the Danish politicians have an unreasonably strong position in that discussion? Parliament appropriates more than a billion kroner annually to the home administration." "We have never used the Danish support as a threat against the Greenland politicians. We have a very close relationship to the Greenlanders, so I do not believe that can happen," Soren B. Jorgensen replies.

The joint council meets a couple of times annually for an orientation on what takes place in the field of raw materials on Greenland.

Siumut Determines

Otto Steenholdt is one of Atassut's two members in the joint council.

"The experts are telling us what a big profit we can get in the Kvane Mountain. If the mine does not damage the environment and the health conditions, we are in favor of mining. In an energy crisis we must not think only of ourselves," says Otto Steenholdt.

In Siumut there is increasing resistance against uranium mining. Six of the party's sections have said no to the Kvane Mountain project, while the other 24 sections have not yet taken a position. Finn Lynge anticipates that the question about uranium mining will characterize Siumut's next national meeting. He is personally against operating a mine in the Kvane Mountain, only 8 kilometers from Narssaq town with 1,750 inhabitants.

"I would like to see the Danish politician, even in the conservative wing, who dares recommend that uranium be mined 8 kilometers from his home town. The important thing is that uranium mines elsewhere in the world have had unpleasant consequences: increased fetal mortality and more cases of cancer among people who work or live at the times. This was shown clearly at the uranium conference which was held in Copenhagen in October," says Finn Lynge.

Siumut has 13 of the 21 seats in the Greenland parliament. This means that Siumut alone can decide whether Greenland should use its veto against the uranium mining--unless an election has shifted the political balance in parliament before the fate of the Kvane Mountain is to be decided--after 1982.

A Mine at Holte?

"Svend Karlskov Jensen. Would you vote yes to the uranium mining if Kvane Mountain was 8 kilometers from your home in Holte?"

"Of course, Holte is now an area with a very high population density, and there are no mountains or fjords either where one can hide the waste from the mine. But the idea itself of a uranium mine or even a nuclear power station at Holte does not scare me."

Svend Karlskov Jensen is the first politician who says that Greenland's veto right in his opinion cannot be used in the question of uranium mining.

"The home administration is not the same as self-administration. The home administration agreement is only an arrangement about increased codetermination within the national framework. For instance, it does not apply in conditions of fundamental national interest."

"Is the mining of the uranium of fundamental national interest?"

"Yes, one could readily say that. Kvane Mountain contains uranium for Danish consumption for more than 65 years. In addition, the home administration report says that the veto right cannot be used against projects which have been started. Millions of kroner were invested in investigations of the Kvane Mountain deposit already before the Greenlanders got home rule last spring. I believe that steps have actually been taken to start the mining," explains Svend Karlskov Jensen.

The formulation in the home rule report which he is talking about runs as follows:

"The joint decision competence will thus be exercised in the preparative and introductory stage." The "joint decision competence" is the same as the veto right.

The Minister Disagrees with Karlskov Jensen

Greenland Minister Jorgen Peder Hansen is convinced that the veto right can also be used to stop the plans about mining uranium.

"The politicians on Greenland can say no to all decisions in the field of raw materials beyond the test drilling which takes place in the Kvane Mountain at this time. I do not agree with Svend Karlskov Jensen," says Jorgen Peder Hansen.

He admits that situations may arise where the government has competence to bypass the veto right. It can, for instance, take place when "important considerations for the economic development and supply of raw material to the entire country" makes it necessary to "assume certain international commitments," which are stated in the home rule report.

"But when can it actually become necessary to make "certain" international agreements?"

"If one uses one's imagination, it may become of interest in a catastrophic energy crisis or in a war situation. Under circumstances of this type we must exhibit international solidarity--a solidarity which the Greenlanders also must contribute to," says the minister. "But then I must add that the solidarity also goes the other way. Each day we are supplying Greenland with oil and other things which are necessary to keep the wheels turning."

Another People's Soil

But who will decide whether we are in a catastrophic energy crisis? And who will decide whether the veto right can be used or not? That depends upon who runs the country after 1982 when the future of the Kvane Mountain will be decided. This depends upon whether the slogan will be Danish uranium in Danish reactors! And it depends upon how great the resistance to uranium mining will be.

In October of last year a group of Greenlanders and Danes organized an inter-political committee against uranium mining on Greenland. The committee has sections in Qaqortaq (Julianehab) and Copenhagen. Birger Kruse is a member:

"The best way to fight nuclear power is to work to make sure the uranium resources, which are found around the world, will never be mined. If they are mined, they will be used sooner or later. First in nuclear power stations and later--as plutonium--for making, for instance, atomic bombs . . . From a human point of view it is completely wrong that Danish politicians and researchers expect to be able to dispose of some raw materials which are located on other people's soil," says Birger Kruse.

Torkil Green Nielsen is a free-lance journalist.

An earlier article about the Greenland uranium appeared on 31 January.

8958
CSO: 5100

DENMARK

BRIEFS

OPINIONS ON RADIO--Nearly 75 percent of the viewers and listeners are aware of the criticism which has been directed against the way the Danish Broadcasting and Television Corporation has been dealing with the nuclear power issue. But the opinions are somewhat divided as to whether or not the criticism has been justified. This was shown in an opinion poll taken by the Gallup Institute for BERLINGSKE TIDENDE. Among those who are aware of the criticism, 37 percent finds that it is justified, 25 percent finds that it is not justified, and 38 percent has no opinion. [Text] [Copenhagen INFORMATION in Danish 3 Mar 80 p 3]

CSO: 5100

FEDERAL REPUBLIC OF GERMANY

BRIEFS

MUNICH NUCLEAR MISHAP--Munich--The Isar nuclear power station reactor had to be shut down today after radioactive steam leaked into the power station's engine room. This was monitored at 1610 by the nuclear reactor monitoring system at the Environment Ministry. A ministry spokesman said that steam had been released into the engine room simultaneously with the leakage. Forty minutes after the automatic signal, the reactor was switched off. Environment Ministry personnel said that leakage was due to a leak in the condensation tank. The leak was repaired after decontamination operations. The Environment Ministry said that the area around the power station had at no time been endangered. [LD280056 Hamburg DPA in German 2302 GMT 27 Mar 80 LD]

CSO: 5100

NUCLEAR ENERGY STILL AN OPTION IN SICILY

Palermo GIORNALE DI SICILIA in Italian 5 Feb 80 p 13

[Article by Francesco Bilotta: "Debate on Candu Plant Still Unresolved"]

[Text] Licata (GIORNALE DI SICILIA news service)--Organized by the Sicilian League for the Environment and by the regional secretariat of the ARCI [Italian Cultural-Recreational Association], the recreational association of the Italian Communist Party, a conference was held in the council chamber of the municipality of Licata on the subject, "What Kind of Energy for Sicily's Development?" Participants in the conference included Professor Bernardo Rossi Doria, of the Sicilian League for the Environment; Professor Lanzavecchia of the CNEN [National Nuclear Energy Commission]; Engineer Battista of the ENEL [National Electric Power Agency]; and Professor Butera of the Sicilian Committee for Control of Energy Options.

Following the official welcome (extended by Mayor Malfitano), Fabio Rocchi of the regional league for the environment (who served as moderator) introduced Professor Bernardo Rossi Doria, who delivered the official report. Professor Rossi Doria declared that economic, social and political development has today been called into question because it is based on erroneous choices, and spoke at length of a new model of modern development which involves a low rate of energy consumption and is based on the articulated use of diverse sources of energy. The speaker then questioned the selection of the nuclear energy option and asserted that Italy has no plan for utilizing alternative energy sources.

Professor Lanzavecchia declared that the development of alternative forms of energy will take a long time because of the lack of advanced technology. He said utilization of the nuclear energy option is inevitable, but added that future possibilities for incorporating the use of other forms of energy should not be disregarded.

Concerning the use of Algerian gas (which will reach Sicily with completion of the methane gas pipeline), Professor Lanzavecchia emphasized that the lack of a regional plan has placed our region in danger of being unable to use the 30 percent share of this gas that has been allocated to it. In the opinion of Engineer Giannino of the energy workers' regional committee, a census of all the regional energy resources is necessary in order to promote the economic development of the island, which must inevitably utilize all integrative and alternative forms of energy. The speaker concluded by saying that the Candu type of nuclear power plant is not the most valid option for Sicily.

In his response, Engineer Battista of the ENEL stated that energy consumption is linked to economic development. He said the situation in Sicily is currently in a state of equilibrium, in that existing energy sources are able to satisfy the requirements of production at current levels.

The final speaker was Professor Butera of the Sicilian Committee for Control of Energy Options. He emphasized that in Sicily only 17.5 percent of the petroleum produced is used by local industry, and said there is no sense talking about hypothetical increases in energy sources when we have no data concerning the Sicilian energy structure.

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CSO: 5100

ITALY

SARDINIAN REGIONAL COUNCIL REJECTS NUCLEAR PLANTS

Cagliari L'UNIONE SARDA in Italian 7 Feb 80 p 2

[Article: "A Unanimous 'No' to the Nuclear Option"]

> [Text] In a statement sponsored by all political parties and requested even by Ghinami, the council expressed its decisive rejection of the proposed installations.

A unanimous "no" to the proposal for the installation of nuclear power plants in Sardinia was expressed yesterday by the Regional Council in approving a directive which commits the Giunta to an emphatic rejection of national proposals or decisions in this respect.

The document was signed by Dettori, Muledda, Casula, Catte, Pigliaru, Piretta, Puggioni and Carlo Sanna, representing the majority, the PCI [Italian Communist Party], the PSD'AZ, and the Italian radicals, who in the voting were joined by the MSI [Italian Social Movement] members. It binds the Giunta to take steps "to guarantee, and ensure, that Sardinia's requirements for the electric power essential to coordinated organic development will be met; to express with clarity and decisiveness the opposition of the Sardinian Region to installation on its territory of a nuclear plant for the production of electric power; and to intensify--within the framework of the programs and plans for Sardinia's economic and social development based on full utilization of local resources--the utilization of Sulcis coal and the other raw materials present in Sardinia, as well as alternative energy sources."

The directive was approved following receipt of a communication from Chairman Ghinami, who stated that the CNEN [National Nuclear Energy Commission]--in cooperation with the ENEL [National Electric Power Agency]--has identified (on the basis of preestablished environmental criteria) seven sites in Sardinia that are suitable for the installation of nuclear power plants. Five of the seven have been rejected on the basis of more restrictive criteria. Even the other two (in the districts of Cabras-Cuglieri and Marceddi) are unsuitable, however, because of the presence of major tourist facilities in the former and military installations (the Capo Frasca target range) in the latter.

Ghinami pointed out, however, that the Giunta has consistently voiced its opposition, for--he said--it would be absurd if Sardinia "went nuclear" in order to produce electric power for export at a time when according to the ENEL the island's energy requirements can be satisfied until the year 1990 by the existing, and projected, power plants of the traditional type. He therefore proposed that the Giunta's position be strengthened by a directive from the council--precisely the one that was approved by unanimous vote.

As a consequence of this decision, the radicals involved in the protest hunger strike have ended their action and also their occupation of the regional secretariat of the PSI [Italian Socialist Party], which they had taken over yesterday afternoon.

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CSO: 5100

EDITORIAL ADVOCATES NUCLEAR PLANTS FOR APULIA

Bari GAZZETTA DEL MEZZOGIORNO in Italian 10 Feb 80 p 4

[Editorial by Franco Ferorelli: "Nuclear Power Plants: Obstacles and Guarantees"]

> [Text] It is not a question merely of saying "yes" but rather of requesting assurances with respect to the safety of the population and the protection of the environment, and having a clear concept of what should be done to "prepare" the area selected.

Will the two projected electric power plants--the coal-fired plant at Taranto and the other plant, the nuclear plant, which is scheduled for location in one of the six areas indicated on the "site map" prepared by the ENEN [National Nuclear Energy Commission]--be built in Apulia? It is a question of interest to all Apulians, a question which the Region is preparing to answer. The Region will, to be sure, render neither a decision nor a binding opinion. Its function is solely to express an evaluation--within the Interregional Commission--of the overall 10-year plan of the ENEL [National Electric Power Agency], which plan provides among other things for construction of the new power plants. It is clear, however, that a "yes" vote by the concerned region will inevitably "open the way" to construction of the plants. Will this "yes" be forthcoming?

Following the consultation that took place among the political, social and labor forces--and representatives of the cultural world--at the conference held by the Region several days ago, one can predict with confidence what the response of the Region will be. "There are no preestablished decisions either for or against the nuclear option," the president of the region, Quarta, said on that occasion. The debate has not been characterized by hysterical preconceptions or visceral opposition. On the assumption that there is an energy problem; that it is necessary to differentiate the primary sources employed, so as to avoid enslavement to petroleum; and that the renewable energy sources (geothermal, solar, wind and so forth) can never make up the difference between requirements and availability, almost all the participants in the discussion expressed the conviction that it is impossible to turn back and take refuge in arguments centering on regional self-sufficiency.

The problem must be viewed from the national standpoint, and Apulia may well be called on to contribute to its solution--even in the interest of the other regions, just as has already occurred with respect to the water problem, the burden of which other regions have shouldered in the interest of Apulia.

The response will accordingly not be a preconceived "no": an energy shortage does exist. Will it therefore be "yes"? Probably so, but the nature of the problem has by that very fact been altered. Aside from (obviously) the question of guarantees for the safety of the population and the protection of the environment, the real problem is one of compatibility. It is therefore essential that the area selected as the site of a power plant have all the technical requisites and also those characteristics that will ensure low levels of human riskand economic or ecological harm.

In fact, Apulia appears ready to accept the sacrifice of playing host to the projected power plants, but only if the choice is truly justified and if there are no doubts as to the necessity of locating it precisely among us. In other words, the doubts raised by Deputy Crivellini (radical) in the course of the debate must be dispelled. Crivellini had said: "Is this not perhaps an attempt to 'Southernize' the nuclear sector as well by installing, in the South, huge plants that are characterized by a high incidence of pollution and a low incidence of employment--as has already occurred in the case of other types of industrial installations?"

It is essential to dispel these doubts, and it seems to us that before giving its definitive response on this question the Region should be very cautious and circumspect in this regard, while also making sure that the sacrifice at the local level is not greater than the benefits obtained even when it is evaluated in the national context. An analysis of this type could, for example, lead to the conclusion that it is inadvisable to "kill" tourism in an area so well suited to that vocation.

Once that obstacle is overcome the problem will be one of asking for safety guarantees and making specific requests that will call for an in-depth analysis of the "impact" that the power plants will have on the area in terms of the incidence of pollution, levels of employment, development of the uneducated, retraining of the local labor force, and utilization of the residual heat and mtterials.

The task the Region is called on to undertake in respect to the energy question is therefore an arduous one, and the difficulties are far greater than those which would be implied by an invitation merely to utter a "yes" or a "no." The Region must say where, how, and under what conditions--and this function is of no small import, even though the final decision is the responsibility of Parliament.

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CSO: 5100

SWEDEN

BRIEFS

NUCLEAR POWERPLANTS BEGIN OPERATIONS--The government gave permission today for the loading of the nuclear power reactors Forsmark 1 and Ginghals 3, the seventh and eighth nuclear power stations in Sweden. Forsmark 1 is expected to start test running on 1 April and Ringhals 3 on 1 July. Their commercial operation is expected to start at the end of the year and the beginning of 1981 respectively. [Text] [LD271540 Stockholm Domestic Service in Swedish 1130 GMT 27 Mar 80 LD]

NUCLEAR ENERGY REFERENDUM APPROVAL--Sweden is preparing to commission new nuclear power plants following yesterday's referendum in which the majority of Swedes gave their support to the use of nuclear energy. Prime Minister Thorbjorn Falldin declared last night that he will respect the referendum result even though he personally is against nuclear energy. It is believed that the referendum results will prove awkward for Falldin since the antinuclear policy of the Center Party, of which he is leader, only secured 38.6 percent of the votes. A total of 58 percent of those who voted supported alternatives one and two which stand for the development of nuclear energy. The referendum result means that Sweden will have a total of 12 nuclear powerplants. [Text] [LD240848 Helsinki Domestic Service in Finnish 0800 GMT 24 Mar 80 LD]

ENERGY REFERENDUM--The Swedish referendum on nuclear energy has resulted in a clear majority in favor of developing nuclear energy, as proposed in alternatives 1 and 2. The final result of the referendum available immediately after midnight as follows: Alternative 1, 18.9 percent; Alternative 2, 39.3 percent; Total 58.2 percent; Alternative 3, 38.5 percent; Blank ballots, 3.3 percent. There are still 30,000 postal votes to be counted. The turnout was 74.3 percent. [LD241110 Stockholm International Service in English 1000 GMT 24 Mar 80 LD]

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